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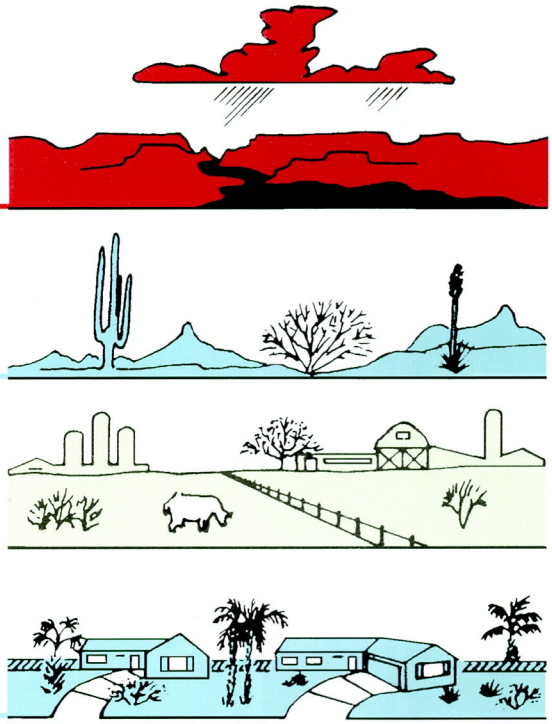

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Stormwater Quality Report
City of Glendale, Arizona

First Quarter 2002

October 31, 2001

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

Stormwater Quality Report

First Quarter, Sampling Year 2002

July 1, 2001 through September 30, 2001

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For

City of Glendale, Arizona

October 31, 2001

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Stormwater Quality Report
City of Glendale, Arizona

First Quarter 2002

October 31, 2001

Introduction

The U.S. Geological Survey operates and maintains five land based stormwater monitoring stations for the City of Glendale for compliance with their National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit.

This report details stormwater sampling and equipment upkeep for the five Glendale stations for the period from July 1, 2001 through September 30, 2001.

During storm events, only representative storm events are sampled. A representative storm event has occurred when the following criteria have been met **and there has been no rainfall greater than 0.10 inches within the previous 72 hours.**

GLENDALE	RAINFALL	DURATION
WINTER (October – March)	**0.2 – 0.7 INCHES**	**5.2 – 15.6 HOURS**
SUMMER (April – September)	**0.2 – 0.8 INCHES**	**2.2 – 6.5 HOURS**

Storm duration is defined as the time period from start to end of a sustained rainfall. Sustained rainfall is defined as rainfall that continues without a gap of greater than 150 consecutive minutes. If a gap greater than 150 consecutive minutes occurs, then the rainfall is considered to be from a separate storm event. Summer months are April through September and winter months are October through March.

Representative Storm Event Summaries

This is a summary of representative storm events that occurred during the first quarter of the 2002 sample year, from July 1 through September 30, 2001. One representative storm event occurred during this period and was sampled. The following is a description of the sampled event.

The storm event of July 29-30, 2001 produced rainfall valley wide. The storm was a representative storm event at the Olive, Butler, Ind Park and Citrus sites. Grab samples were analyzed for the Olive and Ind Park sites. Grab samples and the composite sample were not collected at the Citrus site due to little or no flow during the storm event. Grab samples were not collected at the Butler site due to no flow when the sampling crew arrived on-site. Composite samples were collected at the Butler and Ind Park sites. Composite samples were not collected at the Olive site due to sand plugging the intake and the sampler failing. Rainfall totals in Glendale ranged from 0.22 to 0.72 inches.

Table 1 of this report, lists storm events with rainfall greater than 0.20 inches of rain (Glendale minimum summer rainfall criteria). Table 1 also specifies reasons why samples were not collected and/or analyzed. Table 2 of this report, summarizes data retrievals from the sites.

Storm Event of July 29-30, 2001

SITE NAME	RAINFALL (inches)	REPRESENTATIVE EVENT	SAMPLES ANALYZED
OLIVE	0.62	YES	YES (Grab)
BUTLER	0.72	YES	YES (Composite)
CITRUS	0.22	YES	NO
IND PARK	0.59	YES	YES (Grab and Composite)

TABLE 1
SUMMARY OF GLENDALE STORM EVENTS
WITH RAINFALL > 0.20 INCHES BUT NOT SAMPLED
JULY 1, 2001 – SEPTEMBER 30, 2001

SITE	DATE	RAIN (inches)	REASONS NOT SAMPLED
IND PARK	07/03/01	0.24	DURATION TOO SHORT
BUTLER	07/25/01	0.22	DURATION TOO SHORT
OLIVE	07/25/01	0.34	DURATION TOO SHORT
OLIVE	08/09/01	0.23	DURATION TOO SHORT
BUTLER	08/09/01	0.32	DURATION TOO SHORT
CITRUS	08/09/01	0.87	> 0.70 INCHES, DURATION TOO SHORT
IND PARK	08/11/01	0.20	72-HR RULE, DURATION TOO SHORT
BUTLER	08/11/01	0.31	72-HR RULE, DURATION TOO SHORT
CITRUS	08/17/01	0.36	DURATION TOO SHORT

TABLE 2
SUMMARY OF DATA RETRIEVALS
JULY 1, 2001 – SEPTEMBER 30, 2001

SITE	DATE	RETRIEVAL TYPE
ARROW	07/05/01	Phone - Storm
ARROW	07/06/01	Phone - Storm
ARROW	07/13/01	Phone - Weekly
ARROW	07/20/01	Phone - Weekly
ARROW	08/24/01	Phone - Weekly
ARROW	08/31/01	Phone - Weekly
ARROW	09/07/01	Phone - Weekly
BUTLER	07/06/01	Phone - Storm
BUTLER	07/13/01	Phone - Weekly
BUTLER	07/20/01	Phone - Weekly
BUTLER	07/26/01	Phone - Storm

BUTLER	07/31/01	Phone - Storm
BUTLER	08/03/01	Phone - Weekly
BUTLER	08/10/01	Phone - Storm
BUTLER	08/11/01	Phone - Storm
BUTLER	08/17/01	Phone - Storm
BUTLER	08/24/01	Phone - Weekly
BUTLER	08/31/01	Phone - Weekly
BUTLER	09/07/01	Phone - Weekly
BUTLER	09/14/01	Phone - Weekly
BUTLER	09/21/01	Phone - Weekly
BUTLER	09/28/01	Phone - Weekly

CITRUS	07/03/01	Phone - Storm
CITRUS	07/06/01	Phone - Storm
CITRUS	07/10/01	Phone - Storm
CITRUS	07/20/01	Phone - Weekly
CITRUS	07/26/01	Phone - Storm
CITRUS	07/31/01	Phone - Storm
CITRUS	08/03/01	Phone - Weekly
CITRUS	08/10/01	Phone - Storm
CITRUS	08/17/01	Phone - Storm
CITRUS	08/24/01	Phone - Weekly
CITRUS	08/31/01	Phone - Weekly
CITRUS	09/07/01	Phone - Weekly
CITRUS	09/14/01	Phone - Weekly
CITRUS	09/21/01	Phone - Weekly
CITRUS	09/28/01	Phone - Weekly

IND PARK	07/04/01	Phone - Storm
IND PARK	07/06/01	Phone - Storm
IND PARK	07/13/01	Phone - Weekly
IND PARK	07/15/01	Phone - Storm
IND PARK	07/20/01	Phone - Weekly
IND PARK	07/26/01	Phone - Storm
IND PARK	07/31/01	Phone - Storm
IND PARK	08/03/01	Phone - Weekly
IND PARK	08/10/01	Phone - Storm
IND PARK	08/12/01	Phone - Storm
IND PARK	09/14/01	Phone - Weekly
IND PARK	09/15/01	Phone - Storm
IND PARK	09/21/01	Phone - Weekly
IND PARK	09/28/01	Phone - Weekly

OLIVE	07/05/01	Onsite
OLIVE	07/06/01	Phone - Storm
OLIVE	07/13/01	Phone - Weekly
OLIVE	07/20/01	Phone - Weekly
OLIVE	07/26/01	Phone - Storm
OLIVE	07/31/01	Phone - Storm
OLIVE	08/03/01	Phone - Weekly
OLIVE	08/10/01	Phone - Storm
OLIVE	08/17/01	Phone - Storm
OLIVE	08/24/01	Phone - Weekly
OLIVE	08/31/01	Phone - Weekly
OLIVE	09/07/01	Phone - Weekly
OLIVE	09/14/01	Phone - Weekly
OLIVE	09/21/01	Phone - Weekly
OLIVE	09/28/01	Phone - Weekly

Maintenance Summary

This section details maintenance activities and problems that occurred from July 1 through September 30, 2001. All water quality samplers are SIGMA 900 MAX models with the exception of the Olive stormwater station, which uses an ISCO model 3700 sampler.

ARROW

The sampler was reset on July 6. The phone battery was replaced on July 5, August 24, and September 10. All sampler tubing and collection bottles were cleaned on July 5. The pump tubing was repaired on July 5. The sampler was found to be malfunctioning and was removed and sent in for repair on July 26. A loaner sampler was tried at the site over the period of August 2-6 and was found to not be configured right and was returned to SIGMA. A loaner sampler was successfully installed on August 24. Removed loaner sampler and installed repaired sampler on September 11. Sampler was discovered to have a problem again on September 12-14, it was returned to SIGMA for repair again on September 21.

BUTLER

The sampler was reset on July 6, 26, and August 1, 10, 17. All sampler tubing and collection bottles were cleaned on July 26, and August 1, 10. The sampler battery was replaced on August 15.

CITRUS

The sampler was reset on July 5, 6, 17, 26, and August 1, 10, 17. All sampler tubing and collection bottles were cleaned on July 6, 26, and August 1, 10, 17.

INDUSTRIAL PARK

The sampler was reset on July 5, 6, 17, 26, August 1, 10, 14, and September 12, 21. All sampler tubing and collection bottles were cleaned on July 5, August 1, 10, 14, and September 21. The sampler was found to have a modem problem on August 14, it was removed and sent in for repair on August 15. A loaner sampler was installed on September 11.

OLIVE

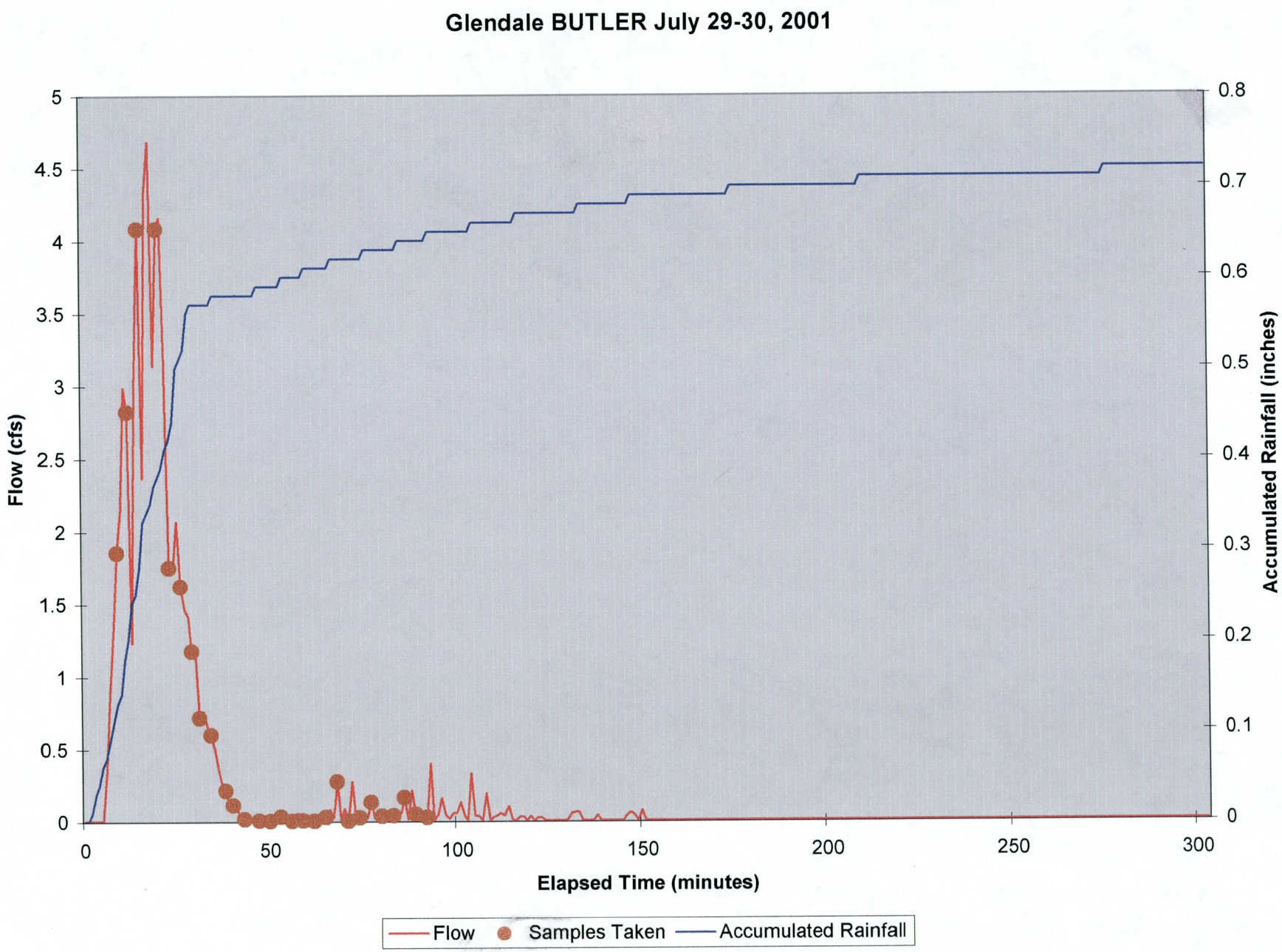
All sampler tubing and collection bottle were cleaned on July 6, 9, 26, and August 1, 9. The data logger battery was replaced on July 5 and August 1. The pump tubing was replaced on August 1.

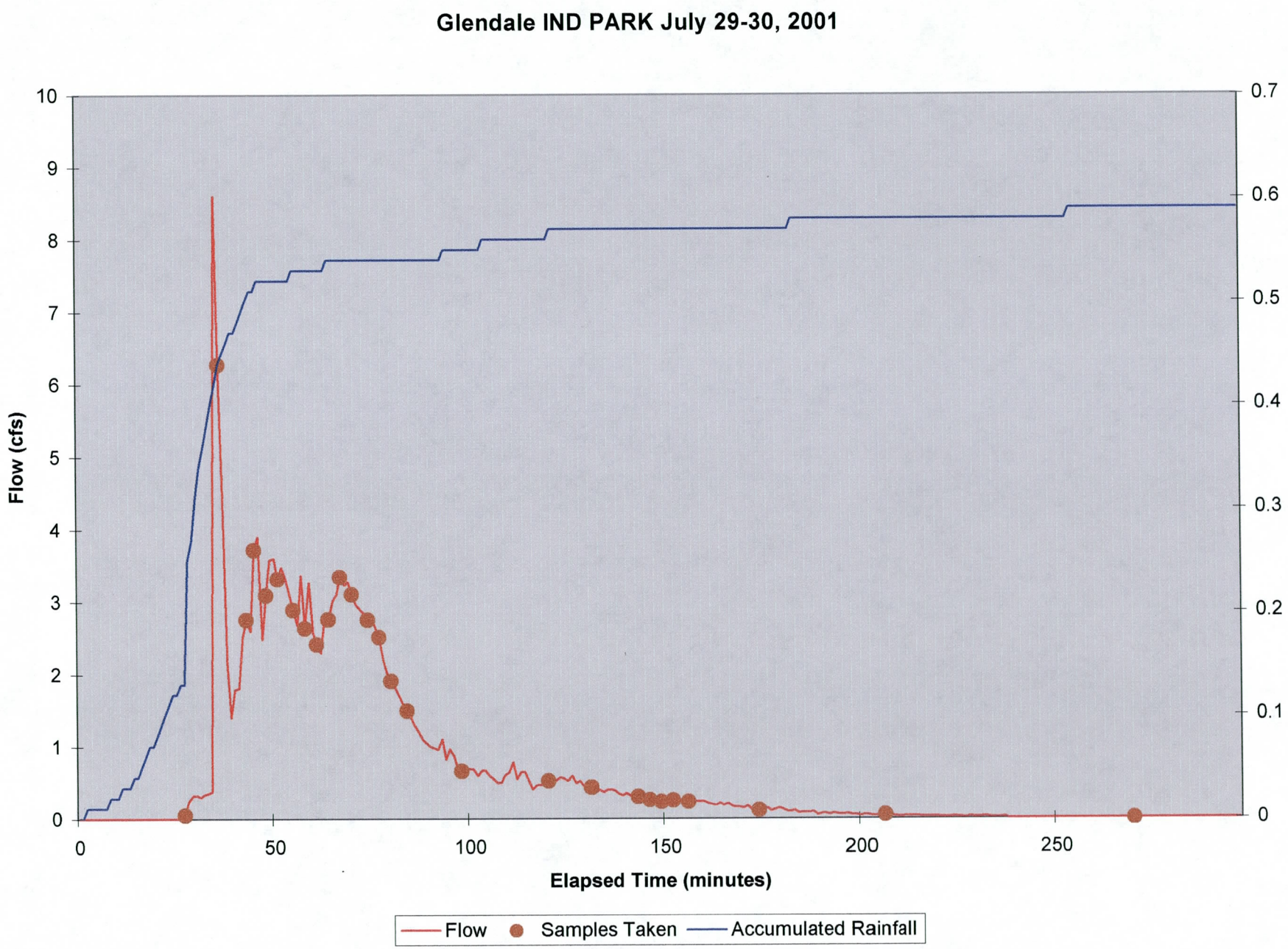
Data compiled for January through June 2001

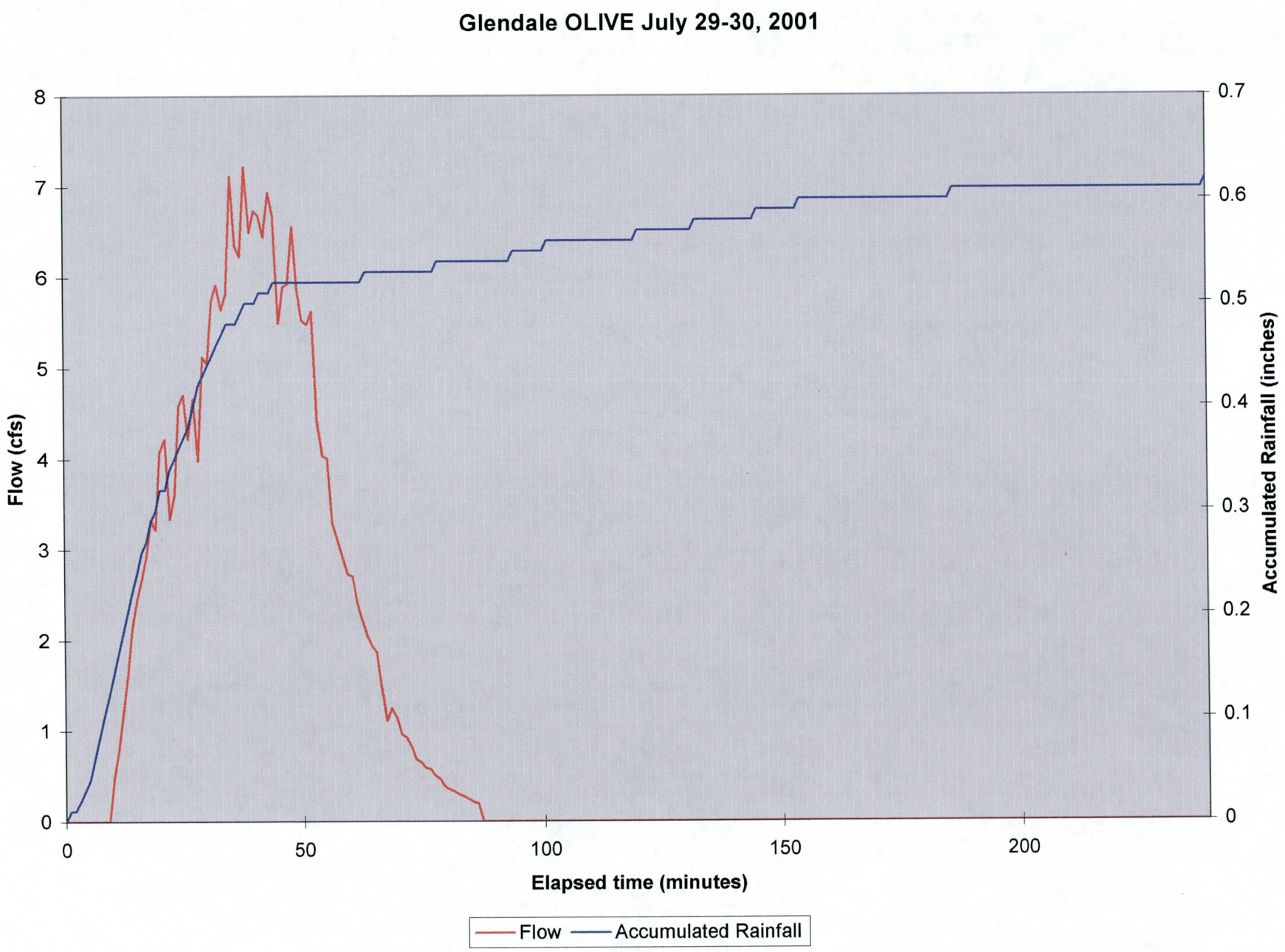
The remainder of this report contains data. The following data are included:

- Storm Hydrographs.
- Rainfall tables for five Glendale NPDES raingages.
- Rainfall data for four Glendale ALERT raingages.
- Analytical Data Tables.
- Data Validation Tables.
- Lab Reports.
- Quality Control Data.
- Chain of Custody Forms.
- Operation and maintenance and storm event log sheets.

Storm Hydrographs


Glendale BUTLER July 29-30, 2001
Flow (cfs)
Accumulated Rainfall (inches)
Elapsed Time (minutes)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
50
100
150
200
250
300
Flow
Samples Taken
Accumulated Rainfall


Glendale IND PARK July 29-30, 2001
Flow (cfs)
10
9
8
7
6
5
4
3
2
1
0
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
50
100
150
200
250
Elapsed Time (minutes)
Flow
Samples Taken
Accumulated Rainfall


Glendale OLIVE July 29-30, 2001
Flow (cfs)
Accumulated Rainfall (inches)
Elapsed time (minutes)
0
1
2
3
4
5
6
7
8
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0
50
100
150
200
Flow
Accumulated Rainfall

Rainfall Data

Rainfall Data Tables (NPDES raingages)

Gauge Rainfall (inches)

Gage Number: ARROW

Location: Skunk Creek near 79th Avenue

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1		gage										
2		not										
3	0.12	working										
4		"										
5		"										
6	0.07	"										
7		"										
8		"										
9		"										
10		"										
11		"										
12		"	gage									
13		"	not									
14		"	working									
15		"	"									
16		"	"									
17		"	"									
18		"	"									
19		"	"									
20		"	"									
21		"	"									
22		gage	"									
23		not	"									
24		working	"									
25	gage		"									
26	not		"									
27	working		"									
28	"		gage									
29	gage		not									
30	not		working									
31	working											
Month Total	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Gauge Rainfall (inches)

Gage Number	BUTLER
Location	56th Drive and Orchid Lane

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1												
2												
3												
4												
5												
6	0.10											
7												
8												
9		0.32										
10		0.05										
11		0.31										
12												
13												
14												
15												
16												
17		0.04										
18												
19												
20												
21												
22												
23												
24												
25	0.22											
26												
27												
28												
29	0.61											
30	0.11											
31												
Month Total	1.04	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Gauge Rainfall (inches)

Gage Number	CITRUS
Location	Grovers at 71st Avenue

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1												
2												
3	0.07											
4												
5												
6	0.12											
7												
8												
9	0.06	0.87										
10		0.02										
11												
12												
13												
14												
15												
16												
17		0.36										
18												
19												
20												
21												
22												
23												
24												
25	0.14											
26												
27												
28												
29	0.15											
30	0.07											
31												
Month Total	0.61	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Gauge Rainfall (inches)

Gage Number: INDUSTRIAL PARK

Location: New River north of Glendale Avenue

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1			gage									
2			not									
3	0.24		working									
4			"									
5	0.08		"									
6	0.06		"									
7			"									
8			gage									
9		0.17	not									
10		0.07	working									
11		0.20										
12												
13												
14	0.05	gage	0.08									
15		not										
16		working										
17		"										
18		"										
19		"										
20		"										
21		"										
22		"										
23		"										
24		"										
25	0.08	"										
26		"										
27		"										
28		"										
29	0.53	gage										
30	0.06	not										
31		working										
Month Total	1.10	0.44	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Gauge Rainfall (inches)

Gage Number	OLIVE
Location	Olive and 67th Avenue

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1												
2												
3												
4												
5												
6	0.10											
7												
8												
9		0.23										
10		0.07										
11												
12												
13												
14												
15												
16												
17		0.15										
18												
19												
20												
21												
22												
23												
24												
25	0.34											
26												
27												
28												
29	0.53											
30	0.09											
31												
Month Total	1.06	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Rainfall Data Tables (ALERT raingages)

Gauge Rainfall (inches)

Gage Number 4785

Location Butler Park

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1												
2												
3												
4												
5												
6												
7	0.08											
8												
9		0.28										
10		0.04	---									
11												
12		0.28										
13												
14												
15												
16												
17		0.04										
18												
19												
20												
21												
22												
23												
24												
25												
26	0.16											
27												
28												
29												
30	0.71											
31												
Month Total	0.95	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Gauge Rainfall (inches)

Gage Number 5505

Location New River at Glendale Avenue

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1												
2												
3	0.12											
4	---											
5	---											
6	0.12											
7	---											
8	---											
9		0.16										
10		0.04										
11		0.20										
12												
13												
14	0.04											
15		0.04										
16												
17		0.16										
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29	0.43											
30	0.12											
31												
Month Total	0.83	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Gauge Rainfall (inches)

Gage Number 5520

Location ACDC at 67th Avenue

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1												
2												
3												
4	0.04											
5												
6												
7	0.08											
8												
9		0.63										
10												
11												
12												
13												
14												
15												
16												
17		0.31										
18												
19												
20												
21												
22												
23												
24												
25												
26	0.47											
27												
28												
29												
30	0.39											
31												
Month Total	0.98	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Gauge Rainfall (inches)

Gage Number 5595

Location New River and Bell Road

	July 2001	August 2001	September 2001	October 2001	November 2001	December 2001	January 2002	February 2002	March 2002	April 2002	May 2002	June 2002
1												
2												
3	0.16											
4												
5												
6	0.08											
7												
8												
9		0.39										
10		0.04										
11		0.04										
12												
13		0.04										
14		0.08										
15												
16												
17		0.39										
18												
19												
20												
21												
22												
23												
24												
25	0.16											
26												
27												
28												
29	0.39											
30	0.08											
31												
Month Total	0.87	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Data Tables

Glendale BUTLER

Orchid Lane and 56th Drive

Date of Sampling	7/29/01
Time	2315
Representative Storm Event	Y
Agency Collecting Sample	USGS
Agency Analyzing Sample	DEL MAR
Drainage Area (acres) (DA)	30
Impervious Area (acres) (IA)	0
Land Use - Residential	30
Land Use - Commercial	0
Land Use - Industrial	0
Land Use - Undeveloped	0
Sampling Duration (minutes) (DRN)	84
Storm Duration (minutes)	275
Runoff Sampled (cubic feet) (RUN)	3,800
Total Storm Runoff (cubic feet)	4,180
Instantaneous Discharge (cfs)	4.685
Preceeding Dry Period (days) (ANT)	4
Total Storm Rainfall (inch)	0.72
Rainfall Sampled (inch) (TRN)	0.51
Maximum 5-minute rain intensity (in/hr)(MAX5)	1.8
Sample Temperature (deg. C)	4
Effluent Temperature (deg. C)	NM
Ambient Temperature (deg. C)	NM
Barometric Pressure (mm Hg)	NM
pH, Effluent (standard units)	NM
pH, Lab (standard units)	7.15
Specific Conductance, FIELD (us/cm)	NM
Specific Conductance, LAB (us/cm)	87
Oxygen Dissolved (% saturation)	NM
Oxygen Dissolved (mg/l)	3.30
BOD5 (mg/l)	NA
COD High Level (mg/l)	91
Chloride (mg/l as Cl)	4
Flouride (mg/l as F)	<1
Cyanide Total (mg/l as Cn)	<0.02
Fecal Coliform (MPN/100ml)	NA
Fecal Streptococci (MPN/100ml)	NA
E. Coli (MPN/100 ml)	NA
Solids Residue at 180 Deg. C (TDS) (mg/l)	66
Residue, Total at 105 Deg. C (TSS) (mg/l)	120
Nitrogen NO_2 + NO_3, Total (mg/l as N)	0.59
TKN Nitrogen (mg/l as N)	2.3
Nitrogen, Ammonia + Organic, Total (mg/l as N)	3.63
Nitrogen Nitrate Total (mg/l as N)	0.56
Nitrogen Nitrite Total (mg/l as N)	<0.1
Nitrogen Ammonia Total (mg/l as N)	0.80
Nitrogen Organic Total (mg/l as N)	1.5
Phosphorous Total (mg/l as P)	0.50
Phosphorous Dissolved (mg/l as P)	0.46
Phosphorous Ortho (mg/l as P)	0.55
Sulfate Total (mg/l)	3.4
Sulfate Dissolved (mg/l)	6.8
Phenols Total Recoverable (ug/l)	6.5

Glendale BUTLER
Orchid Lane and 56th Drive

Date of Sampling	7/29/01
Oil and Grease Total Recoverable (mg/l)	NA
Organic Carbon, Total (mg/l)	19
Bicarbonate Whole Field (mg/l as HCO_3)	93
Bicarbonate Dissolved, Field (mg/l as HCO_3)	40
Carbonate Water Field (mg/l as CO_3)	0
Carbonate Water Dissolved, Field, (mg/l as CO_3)	0
Alkalinity Water Field Total (mg/l as $CaCO_3$)	76
Alkalinity Dissolved Water Field Total (mg/l as $CaCO_3$)	33
Alkalinity LAB (mg/l as $CaCO_3$)	24
Hardness (mg/l)	37
Antimony (ug/l as Sb)	<4
Antimony Dissolved (ug/l as Sb)	<4
Arsenic Total (ug/l as As)	1.5
Arsenic Dissolved (ug/l as As)	1.9
Beryllium Total Recoverable (ug/l as Be)	<0.5
Beryllium Dissolved (ug/l as Be)	<0.5
Cadmium Total Recoverable (ug/l as Cd)	<0.5
Cadmium Dissolved (ug/l as Cd)	<0.5
Calcium Total Recoverable (mg/l as Ca)	10
Chromium Total Recoverable (ug/l as Cr)	5
Chromium Dissolved (ug/l as Cr)	<4
Copper, Total Recoverable, (ug/l as Cu)	16
Copper, Dissolved, (ug/l as Cu)	11
Lead, Total Recoverable, (ug/l as Pb)	11
Lead, Dissolved, (ug/l as Pb)	<2
Magnesium, Total Recoverable, (mg/l as Mg)	2.8
Mercury, Total Recoverable, (ug/l as Hg)	<0.2
Mercury, Dissolved, (ug/l as Hg)	<0.2
Nickel, Total Recoverable, (ug/l as Ni)	6.9
Nickel, Dissolved, (ug/l as Ni)	<4
Potassium, Total Recoverable, (mg/l as K)	3
Selenium, Total, (ug/l as Se)	<4
Selenium, Dissolved, (ug/l as Se)	<4
Silver, Total Recoverable, (ug/l as Ag)	<5
Silver, Dissolved, (ug/l as Ag)	<1
Sodium, Total Recoverable, (mg/l as Na)	<5
Thallium, Total, (ug/l as Tl)	<2
Thallium, Dissolved, (ug/l as Tl)	<2
Zinc, Total Recoverable, (ug/l as Zn)	80
Zinc, Dissolved, (ug/l as Zn)	<50
Aldrin, Total, (ug/l)	<0.1
BHC - Alpha (ug/l)	<0.1
BHC - Beta (ug/l)	<0.1
BHC - Delta (ug/l)	<0.2
BHC - Gamma (Lindane), (ug/l)	<0.1
Aroclor 1016, PCB, Total, (ug/l)	<1
Aroclor 1221, PCB, Total, (ug/l)	<1
Aroclor 1232, PCB, Total, (ug/l)	<1
Aroclor 1242, PCB, Total, (ug/l)	<1
Aroclor 1248, PCB, Total, (ug/l)	<1
Aroclor 1254, PCB, Total, (ug/l)	<1
Aroclor 1260, PCB, Total, (ug/L)	<1

Glendale BUTLER
Orchid Lane and 56th Drive

Date of Sampling	7/29/01
Chlordane, Total, (ug/l)	<1.0
P,P' DDD, Total, (ug/l)	<0.1
P,P' DDE, Total, (ug/l)	<0.1
P, P' DDT, Total, (ug/l)	<0.1
Dieldrin, Total, (ug/l)	<0.1
Endo-Sulfan Alpha, Total, (ug/l)	<0.1
Endo-Sulfan Beta, Total, (ug/l)	<0.1
Endo-Sulfan Sulfate, Total, (ug/l)	<0.2
Endrin, Total, (ug/l)	<0.1
Endrin Aldehyde, Total, (ug/l)	<0.1
Endrin Ketone (ug/l)	<0.1
Heptachlor, Total, (ug/l)	<0.1
Heptachlor Epoxide, Total, (ug/l)	<0.1
Toxaphene, Total, (ug/l)	<5
Methoxychlor, Total, (ug/l)	<0.1
Acenaphthene, Total, (ug/l)	<10
Acenaphthylene, Total, (ug/l)	<10
Anthracene, Total, (ug/l)	<10
Benzidine, Total, (ug/l)	<100
Benzo (a) Anthracene, Total, (ug/l)	<10
Benzo (b) Fluoranthene, Total, (ug/l)	<10
Benzo (k) Fluoranthene, Total, (ug/l)	<10
Benzo (ghi) Perylene, Total, (ug/l)	<20
Benzo (a) Pyrene, Total, (ug/l)	<20
Bis-(2-Chloroethoxy)-Methane, Total, (ug/l)	<10
Bis-(2-Chloroethyl)-Ether, Total, (ug/l)	<10
Bis-(2-Chloroisopropyl)-Ether, Total, (ug/l)	<10
Bis(2-Ethyl Hexyl) Phthalate, Total, (ug/l)	<20
4-Bromo-Phenyl Phenyl Ether, Total, (ug/l)	<20
Butyl Benzyl Phthalate, Total, (ug/l)	<10
2-Chloronapthalene, Total, (ug/l)	<10
2-Chlorophenol, Total, (ug/l)	<10
4-Chloro-Phenyl Phenyl Ether, Total, (ug/l)	<10
Chrysene, Total, (ug/l)	<10
Dibenzo-[a,h]-Anthracene, Total, (ug/l)	<20
Di-N-Butyl Phthalate, Total, (ug/l)	<10
1,3- Dichlorobenzene, Total, (ug/l)	<10
1,4- Dichlorobenzene, Total, (ug/l)	<10
1,2- Dichlorobenzene, Total, (ug/l)	<10
3,3'- Dichlorobenzidine, Total, (ug/l)	<20
2,4- Dichlorophenol, Total, (ug/l)	<10
Diethyl Phthalate, Total, (ug/l)	<10
2,4- Dimethylphenol, Total, (ug/l)	<10
Dimethyl Phthalate, Total, (ug/l)	<10
2-Methyl-4,6-Dinitrophenol, Total, (ug/l)	<10
2,4- Dinitrophenol, Total, (ug/l)	<30
2,4- Dinitrotoluene, Total, (ug/l)	<10
2,6- Dinitrotoluene, Total, (ug/l)	<10
Di-N-Octyl-Phthalate, Total, (ug/l)	<20
Fluoranthene, Total, (ug/l)	<10
Fluorene, Total, (ug/l)	<10
Hexachlorobenzene, Total, (ug/l)	<10

Glendale BUTLER

Orchid Lane and 56th Drive

Date of Sampling	7/29/01
Hexachlorobutadiene, Total, (ug/l)	<20
Hexachlorocyclopentadiene, Total, (ug/l)	<30
Hexachloroethane, Total, (ug/l)	<10
Indeno (1,2,3-CD) Pyrene, Total, (ug/l)	<20
Isophorone, Total, (ug/l)	<20
Naphthalene, Total, (ug/l)	<10
Nitrobenzene, Total, (ug/l)	<10
2-Nitrophenol, Total, (ug/l)	<10
4-Nitrophenol, Total, (ug/l)	<10
N-Nitrosodiphenylamine, Total, (ug/l)	<30
N-Nitrosodi-N-Propylamine, Total, (ug/l)	<10
Pentachlorophenol, Total, (ug/l)	<20
Phenanthrene, Total, (ug/l)	<10
Phenol, Total, (ug/l)	<10
Pyrene, Total, (ug/l)	<10
1,2,4-Trichlorobenzene, Total, (ug/l)	<10
2,4,6- Trichlorophenol, Total, (ug/l)	<10
N-Nitrosodimethylamine, Total, (ug/l)	<10

Glendale INDPK

near Orangewood and 107th Avenue

Date of Sampling	7/29/01
Time	2337
Representative Storm Event	Y
Agency Collecting Sample	USGS
Agency Analyzing Sample	DEL MAR
Drainage Area (acres) (DA)	30
Impervious Area (acres) (IA)	0
Land Use - Residential	0
Land Use - Commercial	0
Land Use - Industrial	30
Land Use - Undeveloped	0
Sampling Duration (minutes) (DRN)	244
Storm Duration (minutes)	253
Runoff Sampled (cubic feet) (RUN)	11,800
Total Storm Runoff (cubic feet)	11,800
Instantaneous Discharge (cfs)	8.607
Preceeding Dry Period (days) (ANT)	26
Total Storm Rainfall (inch)	0.59
Rainfall Sampled (inch) (TRN)	0.46
Maximum 5-minute rain intensity (MAX5)	2.76
Sample Temperature (deg. C)	0
Effluent Temperature (deg. C)	26
Ambient Temperature (deg. C)	NM
Barometric Pressure (mm Hg)	733
pH, Effluent (standard units)	7.54
pH, Lab (standard units)	7.47
Specific Conductance, FIELD (us/cm)	197
Specific Conductance, LAB (us/cm)	150
Oxygen Dissolved (% saturation)	NM
Oxygen Dissolved (mg/l)	3.30
BOD5 (mg/l)	5.3
COD High Level (mg/l)	140
Chloride (mg/l as Cl)	5.6
Fluoride (mg/l as F)	<1
Cyanide Total (mg/l as Cn)	<0.02
Fecal Coliform (MPN/100mL)	>=160,000
Fecal Streptococci (MPN/100mL)	160,000
E. Coli (MPN/100 ml)	12,284
Total Dissolved Solids (mg/l)	160
Total Suspended Solids (mg/l)	100
Nitrogen No2 + No3, Total (mg/l as N)	1.3
TKN Nitrogen (mg/l as N)	2.3
Nitrogen, Ammonia + Organic, Total (mg/l as N)	2.3
Nitrogen Nitrate Total (mg/l as N)	1.2
Nitrogen Nitrite Total (mg/l as N)	<0.1
Nitrogen Ammonia Total (mg/l as N)	1.2
Nitrogen Organic Total (mg/l as N)	1.1
Phosphorous Total (mg/l as P)	0.83
Phosphorous Dissolved (mg/l as P)	0.82
Phosphorous Ortho (mg/l as P)	0.78
Sulfate Dissolved (mg/l)	6.8
Phenols Total Recoverable (ug/l)	17
Oil and Grease Total Recoverable (mg/l)	<1

Glendale INDPK

near Orangewood and 107th Avenue

Date of Sampling	7/29/01
Organic Carbon, Total (mg/l)	34
Bicarbonate Whole Field (mg/l as HCo3)	93
Bicarbonate Dissolved, Field (mg/l as HCo3)	40
Carbonate Water Field (mg/l as Co3)	0
Carbonate Water Dissolved, Field, (mg/l as Co3)	0
Alkalinity Water Field Total (mg/l as CaCo3)	76
Alkalinity Dissolved Water Field Total (mg/l as CaCo3)	33
Alkalinity LAB (mg/l as CaCo3)	61
Hardness (mg/l)	220
Antimony (ug/l as Sb)	<4
Antimony Dissolved (ug/l as Sb)	<4
Arsenic Total (ug/l as As)	4.9
Arsenic Dissolved (ug/l as As)	3.5
Beryllium Total Recoverable (ug/l as Be)	0.7
Beryllium Dissolved (ug/l as Be)	<0.5
Cadmium Total Recoverable (ug/l as Cd)	<0.5
Cadmium Dissolved (ug/l as Cd)	<5
Calcium Total Recoverable (mg/l as Ca)	65
Chromium Total Recoverable (ug/l as Cr)	23
Chromium Dissolved (ug/l as Cr)	<4
Copper, Total Recoverable, (ug/l as Cu)	31
Copper, Dissolved, (ug/l as Cu)	1.1
Lead, Total Recoverable, (ug/l as Pb)	17
Lead, Dissolved, (ug/l as Pb)	<2
Magnesium Total Recoverable (mg/l as Mg)	14
Mercury, Total Recoverable, (ug/l as Hg)	<0.2
Mercury, Dissolved, (ug/l as Hg)	<0.2
Nickel, Total Recoverable, (ug/l as Ni)	30
Nickel, Dissolved, (ug/l as Ni)	<4
Potassium Total Recoverable (mg/l as K)	11
Selenium, Total, (ug/l as Se)	<4
Selenium, Dissolved, (ug/l as Se)	<4
Silver, Total Recoverable, (ug/l as Ag)	<5
Silver, Dissolved, (ug/l as Ag)	<1
Sodium Total Recoverable (mg/l as Na)	6.8
Thallium, Total, (ug/l as Tl)	<2
Thallium, Dissolved, (ug/l as Tl)	<2
Zinc, Total Recoverable, (ug/l as Zn)	110
Zinc, Dissolved, (ug/l as Zn)	<50
Aldrin, Total, (ug/l)	<0.1
BHC - Alpha (ug/l)	<0.1
BHC - Beta (ug/l)	<0.1
BHC - Delta (ug/l)	<0.2
BHC - Gamma (Lindane), (ug/l)	<0.1
Aroclor 1016, PCB, Total, (ug/l)	<1
Aroclor 1221, PCB, Total, (ug/l)	<1
Aroclor 1232, PCB, Total, (ug/l)	<1
Aroclor 1242, PCB, Total, (ug/l)	<1
Aroclor 1248, PCB, Total, (ug/l)	<1
Aroclor 1254, PCB, Total, (ug/l)	<1
Aroclor 1260, PCB, Total, (ug/L)	<1
Chlordane, Total, (ug/l)	<1.0

Glendale INDPK

near Orangewood and 107th Avenue

Date of Sampling	7/29/01
P,P' DDD, Total, (ug/l)	<0.1
P,P' DDE, Total, (ug/l)	<0.1
P, P' DDT, Total, (ug/l)	<0.1
Dieldrin, Total, (ug/l)	<0.1
Endo-Sulfan Alpha, Total, (ug/l)	<0.1
Endo-Sulfan Beta, Total, (ug/l)	<0.1
Endo-Sulfan Sulfate, Total, (ug/l)	<0.2
Endrin, Total, (ug/l)	<0.1
Endrin Aldehyde, Total, (ug/l)	<0.1
Endrin Ketone (ug/l)	<0.1
Heptachlor, Total, (ug/l)	<0.1
Heptachlor Epoxide, Total, (ug/l)	<0.1
Toxaphene, Total, (ug/l)	<5
Methoxychlor, Total, (ug/l)	<0.1
Benzene, Total, (ug/l)	<2
Bromodichloromethane, Total, (ug/l)	<2
Bromoform, Total, (ug/l)	<5
Bromomethane (ug/l)	<5
Carbon Tetrachloride, Total, (ug/l)	<2.5
Chlorobenzene, Total, (ug/l)	<2
Dibromochloromethane (ug/l)	<2
Chloroethane, (ug/l)	<5
Chloroform, Total, (ug/l)	<2
Chloromethane (ug/l)	<5
1,2-Dichlorobenzene, Total, (ug/l)	<2
1,3-Dichlorobenzene, Total, (ug/l)	<2
1,4-Dichlorobenzene, Total, (ug/l)	<2
1,1- Dichloroethane, Total, (ug/l)	<2
1,2- Dichloroethane, Total, (ug/l)	<2
1,1- Dichloroethene, Total, (ug/l)	<5
trans-1,2- Dichloroethene, (ug/l)	<2
1,2- Dichloropropane, Total, (ug/l)	<2
cis-1,3-Dichloropropene, (ug/l)	<2
trans-1,3- Dichloropropene, (ug/l)	<2
Ethylbenzene, Total, (ug/l)	<2
Methylene Chloride, Total, (ug/l)	<5
1,1,2,2-Tetrachloroethane, Total, (ug/l)	<2
Tetrachloroethene, PCE, Total, (ug/l)	<2
Toluene, Total, (ug/l)	<2
1,1,1- Trichloroethane, Total, (ug/l)	<2
1,1,2- Trichloroethane, Total, (ug/l)	<2
Trichloroethene, Total, (ug/l)	<2
Trichlorofluoromethane, Total, (ug/l)	<5
Vinyl Chloride, Total, (ug/l)	<2
Acenaphthene, Total, (ug/l)	<10
Acenaphthylene, Total, (ug/l)	<10
Anthracene, Total, (ug/l)	<10
Benzidine, Total, (ug/l)	<100
Benzo (a) Anthracene, Total, (ug/l)	<10
Benzo (b) Fluoranthene, Total, (ug/l)	<10
Benzo (k) Fluoranthene, Total, (ug/l)	<10
Benzo (ghi) Perylene, Total, (ug/l)	<20

Glendale INDPK

near Orangewood and 107th Avenue

Date of Sampling	7/29/01
Benzo (a) Pyrene, Total, (ug/l)	<20
Bis-(2-Chloroethoxy)-Methane, Total, (ug/l)	<10
Bis-(2-Chloroethyl)-Ether, Total, (ug/l)	<10
Bis-(2-Chloroisopropyl)-Ether, Total, (ug/l)	<10
Bis(2-Ethyl Hexyl) Phthalate, Total, (ug/l)	<20
4-Bromo-Phenyl Phenyl Ether, Total, (ug/l)	<20
Butyl Benzyl Phthalate, Total, (ug/l)	<10
2-Chloronapthalene, Total, (ug/l)	<10
2-Chlorophenol, Total, (ug/l)	<10
4-Chloro-Phenyl Phenyl Ether, Total, (ug/l)	<10
Chrysene, Total, (ug/l)	<10
Dibenzo-[a,h]-Anthracene, Total, (ug/l)	<20
Di-N-Butyl Phthalate, Total, (ug/l)	<10
3,3'- Dichlorobenzidine, Total, (ug/l)	<20
2,4- Dichlorophenol, Total, (ug/l)	<10
Diethyl Phthalate, Total, (ug/l)	<10
2,4- Dimethylphenol, Total, (ug/l)	<10
Dimethyl Phthalate, Total, (ug/l)	<10
2-Methyl-4,6-Dinitrophenol, Total, (ug/l)	<10
2,4- Dinitrophenol, Total, (ug/l)	<30
2,4- Dinitrotoluene, Total, (ug/l)	<10
2,6- Dinitrotoluene, Total, (ug/l)	<10
Di-N-Octyl-Phthalate, Total, (ug/l)	<20
Fluoranthene, Total, (ug/l)	<10
Fluorene, Total, (ug/l)	<10
Hexachlorobenzene, Total, (ug/l)	<10
Hexachlorobutadiene, Total, (ug/l)	<20
Hexachlorocyclopentadiene, Total, (ug/l)	<30
Hexachloroethane, Total, (ug/l)	<10
Indeno (1,2,3-CD) Pyrene, Total, (ug/l)	<20
Isophorone, Total, (ug/l)	<20
Naphthalene, Total, (ug/l)	<10
Nitrobenzene, Total, (ug/l)	<10
2-Nitrophenol, Total, (ug/l)	<10
4-Nitrophenol, Total, (ug/l)	<30
N-Nitrosodiphenylamine, Total, (ug/l)	<10
N-Nitrosodi-N-Propylamine, Total, (ug/l)	<20
Pentachlorophenol, Total, (ug/l)	<10
Phenanthrene, Total, (ug/l)	<10
Phenol, Total, (ug/l)	<10
Pyrene, Total, (ug/l)	<10
1,2,4-Trichlorobenzene, Total, (ug/l)	<10
2,4,6- Trichlorophenol, Total, (ug/l)	<10

Glendale OLIVE

Olive and 67th Avenues

Date of Sampling	7/30/01
Time	0215
Representative Storm Event	Y
Agency Collecting Sample	USGS
Agency Analyzing Sample	DEL MAR
Drainage Area (acres) (DA)	17.8
Impervious Area (acres) (IA)	10.7
Land Use - Residential	17.8
Land Use - Commercial	0
Land Use - Industrial	0
Land Use - Undeveloped	0
Sampling Duration (minutes)	NM
Storm Duration (minutes) (DRN)	239
Runoff Sampled (cubic feet) (RUN)	NM
Total Storm Runoff (cubic feet)	NM
Instantaneous Discharge (cfs)	NM
Preceeding Dry Period (days) (ANT)	4
Total Storm Rainfall (inch)	0.62
Rainfall Sampled (inch) (TRN)	NM
Maximum 5-minute rain intensity (in/hr)(MAX5)	1.2
Sample Temperature (deg. C)	3
Effluent Temperature (deg. C)	24.5
Ambient Temperature (deg. C)	NM
Barometric Pressure (mm Hg)	731
pH, Effluent (standard units)	8.12
pH, Lab (standard units)	NM
Specific Conductance, FIELD (us/cm)	196
Specific Conductance, LAB (us/cm)	NM
Oxygen Dissolved (% saturation)	NM
Oxygen Dissolved (mg/l)	6.78
BOD5 (mg/l)	14
Fecal Coliform (CFU/100ml)	9,000
Fecal Streptococci (CFU/100ml)	22,000
E. Coli (MPN/100 ml)	9,000
Oil and Grease Total Recoverable (mg/l)	<1
Benzene, Total, (ug/l)	<2
Bromodichloromethane, Total, (ug/l)	<2
Bromoform, Total, (ug/l)	<5
Bromomethane (ug/l)	<5
Carbon Tetrachloride, Total, (ug/l)	<2.5
Chlorobenzene, Total, (ug/l)	<2
Dibromochloromethane (ug/l)	<2
Chloroethane, (ug/l)	<5
Chloroform, Total, (ug/l)	<2
Chloromethane (ug/l)	<5
1,2- Dichlorobenzene, Total, (ug/l)	<2
1,3- Dichlorobenzene, Total, (ug/l)	<2
1,4- Dichlorobenzene, Total, (ug/l)	<2
1,1- Dichloroethane, Total, (ug/l)	<2
1,2- Dichloroethane, Total, (ug/l)	<2
1,1- Dichloroethene, Total, (ug/l)	<5
trans-1,2- Dichloroethene, (ug/l)	<2
1,2- Dichloropropane, Total, (ug/l)	<2

Glendale OLIVE

Olive and 67th Avenues

Date of Sampling	7/30/01
cis-1,3-Dichloropropene, (ug/l)	<2
trans-1,3- Dichloropropene, (ug/l)	<2
Ethylbenzene, Total, (ug/l)	<2
Methylene Chloride, Total, (ug/l)	<5
1,1,2,2-Tetrachloroethane, Total, (ug/l)	<2
Tetrachloroethene, PCE, Total, (ug/l)	<2
Toluene, Total, (ug/l)	<2
1,1,1- Trichloroethane, Total, (ug/l)	<2
1,1,2- Trichloroethane, Total, (ug/l)	<2
Trichloroethene, Total, (ug/l)	<2
Trichlorofluoromethane, Total, (ug/l)	<5
Vinyl Chloride, Total, (ug/l)	<2

Validation Tables

Glendale BUTLER

Storm of July 29-30, 2001

	Method	Result	Units	Required Method Detection Limit	Data Qualifiers	Date Analyzed	Allowable Holding Time	Required MS/MSD Precision (% RPD)	Actual MS/MSD Precision (%RPD)	Required Sample Duplication Precision (% RPD)	Actual Sample Duplication Precision (% RPD)	Other QA/QC Comments (out of spec)	Field Blank Detects	Comments
Sample Temperature (deg. C)	Lab	4	deg. C	0.5		7/29/01	Immediate							
Effluent Temperature (deg. C)	Field	NM	deg. C	0.5			Immediate							
Ambient Temperature (deg. C)	Field	NM	deg. C	0.5			Immediate							
Barometric Pressure (mm Hg)	Field	NM	mm Hg	1			Immediate							
pH, Effluent, Field (standard units)	Field	NM	std units	0.1			Immediate							
pH, Lab (standard units)	USGS	7.15	std units	0.1		9/14/01	6 months							
Specific Conductance, FIELD (us/cm)	Field	NM	us/cm	1			Immediate							
Specific Conductance, LAB (us/cm)	2510B	87	us/cm	2		7/31/01	28 days							
Oxygen Dissolved (% saturation)	Field	NM	percent	1			Immediate							
Oxygen Dissolved (mg/l)	Field	3.30	mg/l	0.01		7/29/01	Immediate							
BOD5 (mg/l)	405.1	NA	mg/l	1			48 hours							
COD High Level (mg/l)	410.4	91	mg/l	20		8/8/01	28 days	<20	0.00					
Chloride (mg/l as Cl)	300.0	4	mg/l	0.5		7/30/01	28 days	<20	0.966	<20	0.847			
Flouride (mg/l as F)	300.0	<1	mg/l	1		7/30/01	28 days	<20	3.03	<20	0.432			
Cyanide Total (mg/l as Cn)	4500-CN,C-E	<0.02	mg/l	0.02	R1	8/8/01	14 days	<20	24.7					RPD exceeded method control limit.
Fecal Coliform (MPN/100ml)	9221D	NA	MPN/100ml	2			6 hours							
Fecal Streptococci (MPN/100ml)	9230B	NA	MPN/100ml	2			6 hours							
E. Coli (MPN/100 ml)	9221F	NA	MPN/100 ml	2			6 hours							
Total Dissolved Solids (mg/l)	2540C	66	mg/l	20		8/2/01	7 days							
Total Suspended Solids (mg/l)	160.2	120	mg/l	20	R9	8/2/01	7 days							Sample RPD 6.45% > lab control limit of 5%.
Nitrogen NO_2 + NO_3, Total (mg/l as N)	300.0	0.59	mg/l	0.1		7/30/01	28 days	<20	2.67					For nitrate/nitrite QC, see nitrate and nitrite QC.
TKN Nitrogen (mg/l as N)	351.3	2.3	mg/l	0.18	Q8	8/6/01	28 days			<15	1.39			Insufficient sample to meet method QC.
Nitrogen, Ammonia + Organic, Total (mg/l as N)	calculation	3.63	mg/l				28 days							
Nitrogen Nitrate Total (mg/l as N)	300.0	0.56	mg/l	0.1		7/30/01	48 hours	<20	0.853	<20	1.27			
Nitrogen Nitrite Total (mg/l as N)	300.0	<0.1	mg/l	0.1		7/30/01	48 hours	<20	3.73	<20	0.411			
Nitrogen Ammonia Total (mg/l as N)	350.3	0.80	mg/l	0.05		8/2/01	28 days	<20	18.8					
Nitrogen Organic Total (mg/l as N)	calculation	1.5	mg/l	0.5		8/7/01	28 days							
Phosphorous Total (mg/l as P)	365.3	0.50	mg/l	0.05		8/3/01	28 days	<20	4.01					
Phosphorous Dissolved (mg/l as P)	365.3	0.46	mg/l	0.05		8/3/01	28 days	<20	4.01					
Phosphorous Ortho (mg/l as P)	365.3	0.55	mg/l	0.05		7/31/01	48 hours	<20	0.57					
Sulfate Total (mg/l)	300.0	3.4	mg/l	0.5		7/30/01	28 days	<20	0.484	<20	1.28			
Sulfate Dissolved (mg/l)	300.0	6.8	mg/l	0.5		7/30/01	28 days							
Phenols Total Recoverable (ug/l)	420.1	6.5	ug/l	1		8/6/01	28 days	<20	1	<20	14			
Oil and Grease Total Recoverable (mg/l)	413.1	NA	mg/l				28 days							
Organic Carbon, Total (mg/l)	415.1	19	mg/l	1		7/31/01	28 days	<20	4.69					
Bicarbonate Whole Field (mg/l as HCO_3)	USGS	93	mg/l	0.1		7/29/01	14 days							
Bicarbonate Dissolved, Field (mg/l as HCO_3)	USGS	40	mg/l	0.1		7/29/01	14 days							
Carbonate Water Field (mg/l as CO_3)	USGS	0	mg/l	0.1		7/29/01	14 days							
Carbonate Water Dissolved, Field, (mg/l as CO_3)	USGS	0	mg/l	0.1		7/29/01	14 days							
Alkalinity Water Field Total (mg/l as $CaCO_3$)	USGS	76	mg/l	0.1		7/29/01	14 days							
Alkalinity Dissolved Water Field Total (mg/l as $CaCO_3$)	USGS	33	mg/l	0.1		7/29/01	14 days							
Alkalinity LAB (mg/l as $CaCO_3$)	2320B	24	mg/l	5		8/8/01	14 days							
Hardness (mg/l)	2340B	37	mg/l	1		8/1/01	6 months							
Antimony Total Recoverable (ug/l as Sb)	200.9	<4	ug/l	4		8/5/01	6 months	<20	2.95					
Antimony Dissolved (ug/l as Sb)	200.9	<4	ug/l	4		8/4/01	6 months	<20	1.01					
Arsenic Total (ug/l as As)	200.8	1.5	ug/l	1		8/10/01	6 months	<20	22.7					Batch MSD outside limits; LCS acceptable.
Arsenic Dissolved (ug/l as As)	200.8	1.9	ug/l	1		8/10/01	6 months	<20	0.3					
Beryllium Total Recoverable (ug/l as Be)	200.9	<0.5	ug/l	0.5		8/8/01	6 months	<20	0.473					
Beryllium Dissolved (ug/l as Be)	200.8	<0.5	ug/l	0.5		8/10/01	6 months	<20	0					
Cadmium Total Recoverable (ug/l as Cd)	200.9	<0.5	ug/l	0.5		8/5/01	6 months	<20	10.2					
Cadmium Dissolved (ug/l as Cd)	200.9	<0.5	ug/l	0.5		8/4/01	6 months	<20	4.26					
Calcium Total Recoverable (mg/l as Ca)	200.7	10	mg/l	2		8/1/01	6 months	<20	0.404					
Chromium Total Recoverable (ug/l as Cr)	200.9	5	ug/l	4		8/10/01	6 months	<20	0.657					
Chromium Dissolved (ug/l as Cr)	200.9	<4	ug/l	4		8/4/01	6 months	<20	4.53					
Copper, Total Recoverable, (ug/l as Cu)	200.9	16	ug/l	4		8/8/01	6 months	<20	17.7					
Copper, Dissolved, (ug/l as Cu)	200.8	11	ug/l	1		8/10/01	6 months	<20	1.6					
Lead, Total Recoverable, (ug/l as Pb)	200.9	11	ug/l	2		8/8/01	6 months	<20	2.75					
Lead, Dissolved, (ug/l as Pb)	200.9	<2	ug/l	2		8/4/01	6 months	<20	1.48					
Magnesium, Total Recoverable, (mg/l as Mg)	200.7	2.8	mg/l	0.5	M2	8/1/01	6 months	<20	1.29					MS low, method control recovery acceptable.
Mercury, Total Recoverable, (ug/l as Hg)	245.1	<0.2	ug/l	0.2		8/3/01	6 months	<20	1.06					
Mercury, Dissolved, (ug/l as Hg)	245.1	<0.2	ug/l	0.2		8/6/01	6 months	<20	1.11					
Nickel, Total Recoverable, (ug/l as Ni)	200.9	6.9	ug/l	4		8/5/01	6 months	<20	2.93					
Nickel, Dissolved, (ug/l as Ni)	200.9	<4	ug/l	4		8/5/01	6 months	<20	8.26					
Potassium, Total Recoverable, (mg/l as K)	258.1	3	mg/l	1		8/2/01	6 months	<20	0.969					
Selenium, Total, (ug/l as Se)	200.9	<4	ug/l	4		8/5/01	6 months	<20	1.22					
Selenium, Dissolved, (ug/l as Se)	200.9	<4	ug/l	4		8/4/01	6 months	<20	3.67					
Silver, Total Recoverable, (ug/l as Ag)	200.9	<5	ug/l	5		8/8/01	6 months	<20	0.491					

NA = NOT ANALYZED

NM = NOT MEASURED

Glendale BUTLER Storm of July 29-30, 2001	Method	Result	Units	Required Method Detection Limit	Data Qualifiers	Date Analyzed	Allowable Holding Time	Required MS/MSD Precision (% RPD)	Actual MS/MSD Precision (%RPD)	Required Sample Duplication Precision (% RPD)	Actual Sample Duplication Precision (% RPD)	Other QA/QC Comments (out of spec)	Field Blank Detects	Comments
Silver, Dissolved, (ug/l as Ag)	200.8	<1	ug/l	1		8/10/01	6 months	<20	0.9					
Sodium, Total Recoverable, (mg/l as Na)	273.1	<5	mg/l	5		8/2/01	6 months	<20	0.345					
Thallium, Total, (ug/l as Tl)	200.9	<2	ug/l	2		8/5/01	6 months	<20	0.00					
Thallium, Dissolved, (ug/l as Tl)	200.9	<2	ug/l	2		8/7/01	6 months	<20	2.00					
Zinc, Total Recoverable, (ug/l as Zn)	200.7	80	ug/l	50		8/1/01	6 months	<20	0.985					
Zinc, Dissolved, (ug/l as Zn)	200.7	<50	ug/l	50	B4	8/6/01	6 months	<20	0.00					Target analyte detected in blank.
EPA Method 608 Extraction						8/1/01	7 days							
Aldrin, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	3.43			
BHC - Alpha (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	9.4			
BHC - Beta (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	3.79			
BHC - Delta (ug/l)	608	<0.2	ug/l	0.2		8/2/01	40 days			<20	3.64			
BHC - Gamma (Lindane), (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	5.85			
Aroclor 1016, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days			<25	1.61			
Aroclor 1221, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1232, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1242, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1248, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1254, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1260, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days			<20	2.88			
Chlordane, Total, (ug/l)	608	<1.0	ug/l	1		8/2/01	40 days							
P,P' DDD, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.833			
P,P' DDE, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.00			
P, P' DDT, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.193			
Dieldrin, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.217			
Endosulfan Alpha, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.84			
Endosulfan Beta, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.623			
Endosulfan Sulfate, Total, (ug/l)	608	<0.2	ug/l	0.2		8/2/01	40 days			<20	1.74			
Endrin, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.426			
Endrin Aldehyde, Total, (ug/l)	608	<0.1	ug/l	0.1	V1	8/2/01	40 days			<20	5.38			CCV recovery > MAL
Endrin Ketone (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0			
Heptachlor, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	5.29			
Heptachlor Epoxide, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	1.5			
Toxaphene, Total, (ug/l)	608	<5	ug/l	5		8/2/01	40 days							
Methoxychlor, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.38			
EPA Method 625 Extraction						7/30/01	7 days							
Acenaphthene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.79					
Acenaphthylene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.01					
Anthracene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.29					
Benzidine, Total, (ug/l)	625	<100	ug/l	100	M2 N2	8/3/01	40 days							MS low, method control recovery acceptable.
Benzo (a) Anthracene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.26					
Benzo (b) Fluoranthene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.46					
Benzo (k) Fluoranthene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.46					
Benzo (ghi) Perylene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	4.6					
Benzo (a) Pyrene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	1.83					
Bis-(2-Chloroethoxy)-Methane, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.47					
Bis-(2-Chloroethyl)-Ether, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.33					
Bis-(2-Chloroisopropyl)-Ether, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0					
Bis(2-Ethyl Hexyl) Phthalate, Total, (ug/l)	625	<20	ug/l	20	N2	8/3/01	40 days	<20	2.49					See corrective action report.
4-Bromo-Phenyl Phenyl Ether, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	1.27					
Butyl Benzyl Phthalate, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.65					
2-Chloronapthalene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.922					
2-Chlorophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.56					
4-Chloro-Phenyl Phenyl Ether, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.43					
Chrysene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.64					
Dibenzo-[a,h]-Anthracene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	2.64					
Di-N-Butyl Phthalate, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	4.92					
1,3-Dichlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0					
1,4-Dichlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.588					
1,2-Dichlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.87					
3,3'-Dichlorobenzidine, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	0.905					
2,4-Dichlorophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.06					
Diethyl Phthalate, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.69					
2,4- Dimethylphenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.48					
Dimethyl Phthalate, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.17					
2-Methyl-4,6-Dinitrophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.68					
2,4- Dinitrophenol, Total, (ug/l)	625	<30	ug/l	30		8/3/01	40 days	<20	2.94					
2,4- Dinitrotoluene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	4.79					
2,6- Dinitrotoluene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.3					

NA = NOT ANALYZED

NM = NOT MEASURED

Glendale BUTLER Storm of July 29-30, 2001	Method	Result	Units	Required Method Detection Limit	Data Qualifiers	Date Analyzed	Allowable Holding Time	Required MS/MSD Precision (% RPD)	Actual MS/MSD Precision (%RPD)	Required Sample Duplication Precision (% RPD)	Actual Sample Duplication Precision (% RPD)	Other QA/QC Comments (out of spec)	Field Blank Detects	Comments
Di-N-Octyl-Phthalate, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	2.85					
Fluoranthene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.17					
Fluorene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.39					
Hexachlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.873					
Hexachlorobutadiene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	8.81					
Hexachlorocyclopentadiene, Total, (ug/l)	625	<30	ug/l	30	M2 N2	8/3/01	40 days							MS low, method control recovery acceptable.
Hexachloroethane, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.5					
Indeno (1,2,3-CD) Pyrene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	3.36					
Isophorone, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	3.19					
Naphthalene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	11.2					
Nitrobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.11					
2-Nitrophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.451					
4-Nitrophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	5.61					
N-Nitrosodiphenylamine, Total, (ug/l)	625	<30	ug/l	30		8/3/01	40 days	<20	1.92					
N-Nitrosodi-N-Propylamine, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	4.17					
Pentachlorophenol, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	0.656					
Phenanthrene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0					
Phenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.823					
Pyrene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.58					
1,2,4-Trichlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	4.12					
2,4,6- Trichlorophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.1					
N-Nitrosodimethylamine, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	4.85					

NA = NOT ANALYZED

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Glendale INDUSTRIAL PARK

Storm of July 29-30, 2001

	Method	Result	Units	Required Method Detection Limit	Data Qualifiers	Date Analyzed	Allowable Holding Time	Required MS/MSD Precision (% RPD)	Actual MS/MSD Precision (%RPD)	Required Sample Duplication Precision (% RPD)	Actual Sample Duplication Precision (% RPD)	Other QA/QC Comments (out of spec)	Field Blank Detects	Comments
Sample Temperature (deg. C)	Lab	0	deg. C	0.5		7/29/01	Immediate							
Effluent Temperature (deg. C)	Field	26	deg. C	0.5		7/29/01	Immediate							
Ambient Temperature (deg. C)	Field	NM	deg. C	0.5			Immediate							
Barometric Pressure (mm Hg)	Field	733	mm Hg	1		7/29/01	Immediate							
pH, Effluent, Field (standard units)	Field	7.54	std units	0.1		7/29/01	Immediate							
pH, Lab (standard units)	USGS	7.47	std units	0.1		9/14/01	6 months							
Specific Conductance, FIELD (us/cm)	Field	197	us/cm	1		7/29/01	Immediate							
Specific Conductance, LAB (us/cm)	2510B	150	us/cm	2		7/31/01	28 days							
Oxygen Dissolved (% saturation)	Field	NM	percent	1			Immediate							
Oxygen Dissolved (mg/l)	Field	3.30	mg/l	0.1		7/29/01	Immediate							
BOD5 (mg/l)	405.1	5.3	mg/l	3		7/30/01	48 hours							Seeded control/recovery exceeded QC limits.
COD High Level (mg/l)	410.4	140	mg/l	40	M1	8/3/01	28 days	<20	10.7					MS high, method control recovery acceptable.
Chloride (mg/l as Cl)	300.0	5.6	mg/l	0.5		7/30/01	28 days	<20	0.966	<20	0.847			
Fluoride (mg/l as F)	300.0	<1	mg/l	1	D1	7/30/01	28 days	<20	3.03	<20	0.432			reporting limit adjusted by factor of 2
Cyanide Total (mg/l as Cn)	4500-CN,C-E	<0.02	mg/l	0.02		8/8/01	14 days	<20	8.60					
Fecal Coliform (MPN/100ml)	9221E	>=160,000	MPN/100 ml	2		7/30/01	6 hours							exceeded temperature control + hold times
Fecal Streptococci (MPN/100ml)	9230B	160,000	MPN/100 ml	2		7/30/01	6 hours							exceeded temperature control + hold times
E. Coli (MPN/100 ml)	9221F	12,284	MPN/100 ml	2		7/30/01	6 hours							exceeded temperature control + hold times
Total Dissolved Solids (mg/l)	2540C	160	mg/l	20		8/3/01	7 days							
Total Suspended Solids (mg/l)	160.2	100	mg/l	20	R9	8/2/01	7 days							Sample RPD 6.45% > lab control limit of 5%.
Nitrogen No_2 + No_3, Total (mg/l as N)	300.0	1.3	mg/l	0.1		7/30/01	28 days							For nitrate/nitrite QC, see nitrate and nitrite QC.
TKN Nitrogen (mg/l as N)	351.3	2.3	mg/l	0.16	Q8	8/6/01	28 days			<15	1.39			Insufficient sample to meet method QC.
Nitrogen, Ammonia + Organic, Total (mg/l as N)	calculation	2.3	mg/l			8/7/01	28 days							
Nitrogen Nitrate Total (mg/l as N)	300.0	1.2	mg/l	0.1		7/30/01	48 hours	<20	0.853	<20	1.27			
Nitrogen Nitrite Total (mg/l as N)	300.0	<0.1	mg/l	0.1		7/30/01	48 hours	<20	3.73	<20	0.411			
Nitrogen Ammonia Total (mg/l as N)	350.3	1.2	mg/l	0.05		8/2/01	28 days	<20	18.8					
Nitrogen Organic Total (mg/l as N)	calculation	1.1	mg/l	0.5		8/7/01	28 days							
Phosphorous Total (mg/l as P)	365.3	0.83	mg/l	0.05		8/3/01	28 days	<20	4.01					
Phosphorous Dissolved (mg/l as P)	365.3	0.82	mg/l	0.05		8/3/01	28 days	<20	4.01					
Phosphorous Ortho (mg/l as P)	365.3	0.78	mg/l	0.25		7/31/01	48 hours	<20	0.57					
Sulfate Dissolved (mg/l)	300.0	6.8	mg/l	0.5		7/30/01	28 days	<20	0.484	<20	1.28			
Phenols Total Recoverable (ug/l)	420.1	17	ug/l	1		8/6/01	28 days	<20	1	<20	14			
Oil and Grease Total Recoverable (mg/l)	413.2	<1	mg/l	1		8/2/01	28 days			<20	3.28			
Organic Carbon, Total (mg/l)	415.1	34	mg/l	1		7/31/01	28 days	<20	4.69					
Bicarbonate Whole Field (mg/l as HCO_3)	USGS	93	mg/l	0.1		7/29/01	14 days							
Bicarbonate Dissolved, Field (mg/l as HCO_3)	USGS	40	mg/l	0.1		7/29/01	14 days							
Carbonate Water Field (mg/l as CO_3)	USGS	0	mg/l	0.1		7/29/01	14 days							
Carbonate Water Dissolved, Field, (mg/l as CO_3)	USGS	0	mg/l	0.1		7/29/01	14 days							
Alkalinity Water Field Total (mg/l as $CaCO_3$)	USGS	76	mg/l	0.1		7/29/01	14 days							
Alkalinity Dissolved Water Field Total (mg/l as $CaCO_3$)	USGS	33	mg/l	0.1		7/29/01	14 days							
Alkalinity LAB (mg/l as $CaCO_3$)	2320B	61	mg/l	5		8/6/01	14 days							
Hardness (mg/l)	2340B	220	mg/l	1		8/1/01	6 months							
Antimony (ug/l as Sb)	200.9	<4	ug/l	4		8/5/01	6 months	<20	2.95					
Antimony Dissolved (ug/l as Sb)	200.9	<4	ug/l	4		8/5/01	6 months	<20	2.95					
Arsenic Total (ug/l as As)	200.8	4.9	ug/l	1	J1	8/10/01	6 months	<20	22.7					Batch MSD outside limits; LCS acceptable.
Arsenic Dissolved (ug/l as As)	200.8	3.5	ug/l	1		8/10/01	6 months	<20	0.3					
Beryllium Total Recoverable (ug/l as Be)	200.9	0.7	ug/l	0.5		8/8/01	6 months	<20	0.473					
Beryllium Dissolved (ug/l as Be)	200.8	<0.5	ug/l	0.5		8/10/01	6 months	<20	0					
Cadmium Total Recoverable (ug/l as Cd)	200.9	<0.5	ug/l	0.5		8/5/01	6 months	<20	10.2					
Cadmium Dissolved (ug/l as Cd)	200.9	<5	ug/l	5		8/5/01	6 months	<20	10.2					
Calcium Total Recoverable (mg/l as Ca)	200.7	65	mg/l	2		8/1/01	6 months	<20	0.984					
Chromium Total Recoverable (ug/l as Cr)	200.9	23	ug/l	4		8/10/01	6 months	<20	0.657					
Chromium Dissolved (ug/l as Cr)	200.9	<4	ug/l	4		8/10/01	6 months	<20	0.657					
Copper, Total Recoverable, (ug/l as Cu)	200.9	31	ug/l	4		8/8/01	6 months	<20	17.7					
Copper, Dissolved, (ug/l as Cu)	200.8	1.1	ug/l	1		8/10/01	6 months	<20	1.6					
Lead, Total Recoverable, (ug/l as Pb)	200.9	17	ug/l	2		8/8/01	6 months	<20	2.75					
Lead, Dissolved, (ug/l as Pb)	200.9	<2	ug/l	2		8/8/01	6 months	<20	2.75					
Magnesium Total Recoverable (mg/l as Mg)	200.7	14	mg/l	0.5		8/1/01	6 months	<20	0.504					
Mercury, Total Recoverable, (ug/l as Hg)	245.1	<0.2	ug/l	0.2		8/3/01	6 months	<20	1.06					
Mercury, Dissolved, (ug/l as Hg)	245.1	<0.2	ug/l	0.2		8/6/01	6 months	<20	1.11					
Nickel, Total Recoverable, (ug/l as Ni)	200.9	30	ug/l	4		8/5/01	6 months	<20	2.93					
Nickel, Dissolved, (ug/l as Ni)	200.9	<4	ug/l	4		8/5/01	6 months	<20	2.93					
Potassium Total Recoverable (mg/l as K)	258.1	11	mg/l	1		8/2/01	6 months	<20	0.837					
Selenium, Total, (ug/l as Se)	200.9	<4	ug/l	4		8/5/01	6 months	<20	1.22					
Selenium, Dissolved, (ug/l as Se)	200.9	<4	ug/l	4		8/5/01	6 months	<20	1.22					
Silver, Total Recoverable, (ug/l as Ag)	200.9	<5	ug/l	5		8/8/01	6 months	<20	0.491					
Silver, Dissolved, (ug/l as Ag)	200.8	<1	ug/l	1		8/10/01	6 months	<20	0.9					

NM = NOT MEASURED

Glendale INDUSTRIAL PARK Storm of July 29-30, 2001	Method	Result	Units	Required Method Detection Limit	Data Qualifiers	Date Analyzed	Allowable Holding Time	Required MS/MSD Precision (% RPD)	Actual MS/MSD Precision (%RPD)	Required Sample Duplication Precision (% RPD)	Actual Sample Duplication Precision (% RPD)	Other QA/QC Comments (out of spec)	Field Blank Detects	Comments
Sodium Total Recoverable (mg/l as Na)	273.1	6.8	mg/l	5		8/2/01	6 months	<20	1.01					
Thallium, Total, (ug/l as Tl)	200.9	<2	ug/l	2		8/5/01	6 months	<20	0.00					
Thallium, Dissolved, (ug/l as Tl)	200.9	<2	ug/l	2		8/5/01	6 months	<20	0.00					
Zinc, Total Recoverable, (ug/l as Zn)	200.7	110	ug/l	50		8/1/01	6 months	<20	0.976					
Zinc, Dissolved, (ug/l as Zn)	200.7	<50	ug/l	50	B4	8/6/01	6 months	<20	9.28					Target analyte detected in blank.
EPA Method 608 Extraction						8/1/01	7 days							
Aldrin, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	3.43			
BHC - Alpha (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	9.4			
BHC - Beta (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	3.79			
BHC - Delta (ug/l)	608	<0.2	ug/l	0.2		8/2/01	40 days			<20	3.64			
BHC - Gamma (Lindane), (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	5.85			
Aroclor 1016, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days			<25	1.61			
Aroclor 1221, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1232, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1242, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1248, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1254, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days							
Aroclor 1260, PCB, Total, (ug/l)	608	<1	ug/l	1		8/2/01	40 days			<20	2.88			
Chlordane, Total, (ug/l)	608	<1.0	ug/l	1		8/2/01	40 days							
P,P' DDD, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.833			
P,P' DDE, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.00			
P, P' DDT, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.193			
Dieldrin, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.217			
Endosulfan Alpha, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.84			
Endosulfan Beta, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.623			
Endosulfan Sulfate, Total, (ug/l)	608	<0.2	ug/l	0.2		8/2/01	40 days			<20	1.74			
Endrin, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.426			
Endrin Aldehyde, Total, (ug/l)	608	<0.1	ug/l	0.1	V1	8/2/01	40 days			<20	5.38			CCV recovery > MAL
Endrin Ketone (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0			
Heptachlor, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	5.29			
Heptachlor Epoxide, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	1.5			
Toxaphene, Total, (ug/l)	608	<5	ug/l	5		8/2/01	40 days							
Methoxychlor, Total, (ug/l)	608	<0.1	ug/l	0.1		8/2/01	40 days			<20	0.38			
Benzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.93	<20	1.12			
Bromodichloromethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.31	<20	0.813			
Bromoform, Total, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	2.06	<20	0.506			
Bromomethane (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	2.06	<20	0.347			
Carbon Tetrachloride, Total, (ug/l)	624	<2.5	ug/l	2.5		7/31/01	14 days	<20	2.45	<20	1.75			
Chlorobenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.18	<20	0			
Dibromochloromethane (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0	<20	1.37			
Chloroethane, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	0.477	<20	0.381			
Chloroform, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.91	<20	1.14			
Chloromethane (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	2.18	<20	1.22			
1,2- Dichlorobenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.458	<20	0.416			
1,3- Dichlorobenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0	<20	0.402			
1,4- Dichlorobenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.426	<20	0.401			
1,1- Dichloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.2	<20	2.32			
1,2- Dichloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.976	<20	0.451			
1,1- Dichloroethene, Total, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	0.901	<20	0			
trans-1,2- Dichloroethene, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.28	<20	0.364			
1,2- Dichloropropane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.434	<20	1.22			
cis-1,3-Dichloropropene, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.525	<20	0.432			
trans-1,3- Dichloropropene, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.44	<20	2.44			
Ethylbenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.712	<20	0.00			
Methylene Chloride, Total, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	2.31	<20	0.803			
1,1,2,2-Tetrachloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.15	<20	0.612			
Tetrachloroethene, PCE, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.26	<20	1.22			
Toluene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.81	<20	0.388			
1,1,1- Trichloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.25	<20	0.743			
1,1,2- Trichloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.14	<20	2.86			
Trichloroethene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.27	<20	2.45			
Trichlorofluoromethane, Total, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	3.61	<20	7.12			
Vinyl Chloride, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.59	<20	1.46			
EPA Method 625 Extraction						7/30/01	7 days							
Acenaphthene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.79					
Acenaphthylene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.01					
Anthracene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.29					
Benzidine, Total, (ug/l)	625	<100	ug/l	100	M2 N2	8/3/01	40 days							MS low, method control recovery acceptable.

NM = NOT MEASURED

Glendale INDUSTRIAL PARK

Storm of July 29-30, 2001

	Method	Result	Units	Required Method Detection Limit	Data Qualifiers	Date Analyzed	Allowable Holding Time	Required MS/MSD Precision (% RPD)	Actual MS/MSD Precision (%RPD)	Required Sample Duplication Precision (% RPD)	Actual Sample Duplication Precision (% RPD)	Other QA/QC Comments (out of spec)	Field Blank Detects	Comments
Benzo (a) Anthracene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.26					
Benzo (b) Fluoranthene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.46					
Benzo (k) Fluoranthene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.46					
Benzo (ghi) Perylene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	4.6					
Benzo (a) Pyrene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	1.83					
Bis-(2-Chloroethoxy)-Methane, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.47					
Bis-(2-Chloroethyl)-Ether, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.33					
Bis-(2-Chloroisopropyl)-Ether, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0					
Bis(2-Ethyl Hexyl) Phthalate, Total, (ug/l)	625	<20	ug/l	20	N2	8/3/01	40 days	<20	2.49					See corrective action report.
4-Bromo-Phenyl Phenyl Ether, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	1.27					
Butyl Benzyl Phthalate, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.65					
2-Chloronapthalene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.922					
2-Chlorophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.56					
4-Chloro-Phenyl Phenyl Ether, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.43					
Chrysene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.64					
Dibenzo-[a,h]-Anthracene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	2.64					
Di-N-Butyl Phthalate, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	4.92					
1,3-Dichlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0					
1,4-Dichlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.588					
1,2-Dichlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.87					
3,3'-Dichlorobenzidine, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	0.905					
2,4-Dichlorophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.06					
Diethyl Phthalate, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.69					
2,4- Dimethylphenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.48					
Dimethyl Phthalate, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.17					
2-Methyl-4,6-Dinitrophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.68					
2,4- Dinitrophenol, Total, (ug/l)	625	<30	ug/l	30		8/3/01	40 days	<20	2.94					
2,4- Dinitrotoluene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	4.79					
2,6- Dinitrotoluene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.3					
Di-N-Octyl-Phthalate, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	2.85					
Fluoranthene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.17					
Fluorene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.39					
Hexachlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.873					
Hexachlorobutadiene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	8.81					
Hexachlorocyclopentadiene, Total, (ug/l)	625	<30	ug/l	30	M2 N2	8/3/01	40 days							MS low, method control recovery acceptable.
Hexachloroethane, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.5					
Indeno (1,2,3-CD) Pyrene, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	3.36					
Isophorone, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	3.19					
Naphthalene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	11.2					
Nitrobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.11					
2-Nitrophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.451					
4-Nitrophenol, Total, (ug/l)	625	<30	ug/l	30		8/3/01	40 days	<20	5.61					
N-Nitrosodiphenylamine, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	1.92					
N-Nitrosodi-N-Propylamine, Total, (ug/l)	625	<20	ug/l	20		8/3/01	40 days	<20	4.17					
Pentachlorophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.656					
Phenanthrene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0					
Phenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	0.823					
Pyrene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	2.58					
1,2,4-Trichlorobenzene, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	4.12					
2,4,6- Trichlorophenol, Total, (ug/l)	625	<10	ug/l	10		8/3/01	40 days	<20	3.1					

NM = NOT MEASURED

Glendale OLIVE

Storm of July 29-30, 2001

	Method	Result	Units	Method Reporting Limit	Data Qualifiers	Date Analyzed	Allowable Holding Time	Required MS/MSD Precision (% RPD)	Actual MS/MSD Precision (%RPD)	Required Sample Duplication Precision (% RPD)	Actual Sample Duplication Precision (% RPD)	Other QA/QC Comments (out of spec)	Field Blank Detects	Comments
Sample Temperature (deg. C)	Lab	3	deg. C	0.5		7/30/01	Immediate							
Effluent Temperature (deg. C)	Field	24.5	deg. C	0.5		7/30/01	Immediate							
Ambient Temperature (deg. C)	Field	NM	deg. C	0.5			Immediate							
Barometric Pressure (mm Hg)	Field	731	mm Hg	1		7/30/01	Immediate							
pH, Effluent, Field (standard units)	Field	8.12	std units	0.1		7/30/01	Immediate							
pH, Lab (standard units)	USGS	NM	std units	0.1			6 months							
Specific Conductance, FIELD (us/cm)	Field	196	us/cm	1		7/30/01	Immediate							
Specific Conductance, LAB (us/cm)	2510B	NM	us/cm	2			28 days							
Oxygen Dissolved (% saturation)	Field	NM	% sat	1			Immediate							
Oxygen Dissolved (mg/l)	Field	6.78	mg/l	0.01		7/30/01	Immediate							
BOD5 (mg/l)	405.1	14	mg/l	3		7/30/01	48 hours							Seeded contro/recovery exceeded QC limits.
Fecal Coliform (MPN/100ml)	9221E	9,000	MPN/100 ml	1		7/30/01	6 hours							
Fecal Streptococci (MPN/100ml)	9230B	22,000	MPN/100 ml	1		7/30/01	6 hours							
E. Coli (MPN/100 ml)	9221F	9,000	MPN/100 ml	1		7/30/01	6 hours							
Oil and Grease Total Recoverable (mg/l)	413.2	<1	mg/l	1		8/2/01	28 days			<20	3.28			
Benzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.93	<20	1.12			
Bromodichloromethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.31	<20	0.813			
Bromoform, Total, (ug/l)	624	<5	ug/l	2		7/31/01	14 days	<20	2.06	<20	0.506			
Bromomethane (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	2.06	<20	0.347			
Carbon Tetrachloride, Total, (ug/l)	624	<2.5	ug/l	2.5		7/31/01	14 days	<20	2.45	<20	1.75			
Chlorobenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.18	<20	0			
Dibromochloromethane (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0	<20	1.37			
Chloroethane, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	0.477	<20	0.381			
Chloroform, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.91	<20	1.14			
Chloromethane (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	2.18	<20	1.22			
1,2- Dichlorobenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.458	<20	0.416			
1,3- Dichlorobenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0	<20	0.402			
1,4- Dichlorobenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.426	<20	0.401			
1,1- Dichloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.2	<20	2.32			
1,2- Dichloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.976	<20	0.451			
1,1- Dichloroethene, Total, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	0.901	<20	0			
trans-1,2- Dichloroethene, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.28	<20	0.364			
1,2- Dichloropropane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.434	<20	1.22			
cis-1,3-Dichloropropene, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.525	<20	0.432			
trans-1,3- Dichloropropene, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.44	<20	2.44			
Ethylbenzene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	0.712	<20	0.00			
Methylene Chloride, Total, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	2.31	<20	0.803			
1,1,2,2-Tetrachloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.15	<20	0.612			
Tetrachloroethene, PCE, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.26	<20	1.22			
Toluene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.81	<20	0.388			
1,1,1- Trichloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.25	<20	0.743			
1,1,2- Trichloroethane, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	2.14	<20	2.86			
Trichloroethene, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.27	<20	2.45			
Trichlorofluoromethane, Total, (ug/l)	624	<5	ug/l	5		7/31/01	14 days	<20	3.61	<20	7.12			
Vinyl Chloride, Total, (ug/l)	624	<2	ug/l	2		7/31/01	14 days	<20	1.59	<20	1.46			

NM = Not Measured

Lab Reports and Quality Control Data

** SEP 24 2001 AT 1349 NWIS PROGRAM QACARDSIN/QWCARDSIN TRANSACTION NO.: 26

United States Department of the Interior
U.S. Geological Survey
Water Resources Division
National Laboratory
Arvada, Colorado

RECORD NO.: 00100550
SITE ID: USGS 333346112104501 LAB ID NO.: PROJECT: 470416800
STATION NAME: BUTLER-ORCHID LANE AND 56TH DRIVE STATE: 04
BEGIN DATE: 07-29-2001 AT 2315 END DATE: - - AT COUNTY: 013
GEOLOGIC UNIT: DATA TYPES: CH ME NU
STATUS: H SOURCE: 9 HYD. CONDITION: 9 TYPE: 9 HYD. EVENT: J
MEDIUM: 9 REMARKS TO LAB: Pared NPDES Sample. Sent to Ocala Lab.
SAMPLE COST: $148.90 REMARKS FROM LAB: OCALA LABID ID NUMBER: 200109188
SCHEDULES USED:
NO. PARAMETERS: 32 PROCESSING STATUS: R

	CODE	PARAMETER NAME	UNITS	VALUE	REM	QA	MET	PREC CODE
	00027	COLLECTING AGENCY	(CODE NUMBER)	1028.		I		5
UPDATE	00028	ANALYZING AGENCY	(CODE NUMBER)	81213.		I	A	5
	00061	DISCHARGE, INST.	CFS	4.68		I		3
	00063	NUMBER OF SAMPLING P	(COUNT)	1.		I		1
	00065	GAGE HEIGHT	(FEET)	.28		I		4
	00129	PRECIPITATION INT. 1	(INCHES/HOUR)	1.8		I		2
	00132	DRY DAYS	(DAYS)	4.		I		2
	00135	STORM TIME (HOURS)	(HOURS)	4.58		I		2
NEW-->	00340	COD HIGH LEVEL MG/L	(MG/L)	45.		A	0	2
NEW-->	00403	PH, WH, LABORATORY	(STANDARD UNITS)	7.15		A	A	3
	00419	ANC, IT, FIELD	(MG/L AS CACO3)	23.		I		2
	00447	ANC CARB IT FIELD	(MG/L AS CO3)	.0		I		3
	00450	ANC BICARB IT FIELD	(MG/L AS HCO3)	28.		I		2
	00452	CARBONATE,DIS,IT,F	(MG/L AS CO3)	.0		I	B	2
	00453	BICARBONATE,DIS,IT,F	(MG/L AS HCO3)	19.5		I	B	2
NEW-->	00530	RESIDUE TOTAL	(MG/L)	110.		A	B	2
COMPUTED	00605	NITROGEN ORGANIC T.	(MG/L AS N)	1.5				
NEW-->	00610	NITROGEN AMMONIA T.	(MG/L AS N)	.78		A	F	2
NEW-->	00625	NITROGEN AMM+ORG TOT	(MG/L AS N)	2.3		A	D	2
NEW-->	00630	NO2 + NO3 TOTAL	(MG/L AS N)	.63		A	E	2
NEW-->	00665	PHOSPHORUS TOTAL	(MG/L AS P)	.43		A	D	2
NEW-->	00666	PHOSPHORUS DISS.	(MG/L AS P)	.23		A	D	2
NEW-->	01027	CADMIUM TOTAL	(UG/L AS CD)	.5	1	A	4	1
NEW-->	01042	COPPER TOTAL	(UG/L AS CU)	15.		A	1	2
NEW-->	01051	LEAD, TOTAL	(UG/L AS PB)	8.		A	4	1
NEW-->	01092	ZINC TOTAL	(UG/L AS ZN)	87.		A	1	2
	39086	ALKALINITY,DIS,IT,F	(MG/L AS CACO3)	16.		I	B	2
NEW-->	70300	RESIDUE DIS 180C	MG/L	64.		A	A	2
	81395	STORM WATER FLOW	(MGD)	.031		I		2
	82381	PRECIPITATION TOTAL	INCHES	.72		I		2
	82398	SAMPLING METHOD	METHOD, CODES	30.		I		2
NEW-->	90410	ANC, TIT. 4.5, LAB	MG/L AS CACO3	27.		A	A	2
NEW-->	99870	IN-BOTTLE DIGESTION	DDD	1.		A	8	2

********** ERROR REPORT AND MESSAGES TO AND FROM LAB FOR TRANSACTION NO. 26 **********

PARAMETER 00028 CHANGED FROM 1028. REM/QA/MET/SIG = (I 5) TO 81213. REM/QA/MET/SIG = (IA5)

MESSAGE FROM LAB OCALA LABID ID NUMBER: 200109188

RECORD NUMBER: 00100550

STATION ID: USGS 333346112104501

STATION NAME: BUTLER-ORCHID LANE AND 56TH DRIVE

COLLECTION DATE: 07-29-2001 2315 - -

PARTIAL BALANCE

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
			BICARB., DIS, IT, FLD	20	0.320
			CARB., DIS, IT, FLD	0	0.001
TOTAL		0.001	TOTAL		0.320

PERCENT DIFFERENCE =-100.00

Lab Id Number	Field Id Number	Station Id Number	Collection Date / Time	Project Account	Cost $	Station Name
200109188		333346112104501	07/29/2001 23:15	470416800	148.90	BUTLER

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                                        ******************************************************
                                        *   U.S. Geological Survey, WRD - Q.W. Service Unit   *
                                        *        4500 S.W. 40th Avenue - Ocala, Florida       *
                                        *  Telephone: (352) 237-5514 FLDEP CompQAP # 910161G  *
                                        *            Processing Date: 09/24/2001              *
*****************************************************************************************************************
*  Lab Id Number:  200109188  Field Id Number:                Station Id Number: 333346112104501  Date: 07/29/2001  Time: 23:15   *
*  NWIS Record Number:                SMS Control Number:                Site Type:                                                *
*  Station Name: BUTLER                                             State Code:  4  County Code:  13                             *
*  Sample Medium: 9  Geologic Unit:          Analysis Status: H  Analysis Source: 9  Hydrologic Condition: 9  Sample Type: 9    *
*  Hydrologic Event: J  Project Account: 470416800   Analysis Cost: $  148.90  District/User Code: 04                          *
*****************************************************************************************************************
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Cation Parameter(s)	Value mg/L	Value meq/L	Anion Parameter(s)	Value mg/L	Value meq/L	Selected Parameter(s)	Reported Value
Ammonia as NH4	1.00	0.056	Alk as CaCO3	27.07	0.541	Alk as CaCO3 LAB	27.073
						ph (LAB)	7.150
						ROE at 180C	64.000
Cation Total		0.056	Anion Total		0.541		

Lab Code	Watstore Number	Parameter Name	Analysis Method	Reporting Units	Reported Value	Rmk Code	Analysis Date	/ Time
0070	90410(A)	ALKALINITY TOT AS CACO3 (LAB)	I-2030-85	mg/L	27		08/09/2001	11:42
0091	00028(A)	ANALYZING AGENCY	- -	Number	81213		Parameter	
3014	01027(4)	CADMIUM TOTAL (ICP/T)	EPA-200.7	ug/L	0.5	<	08/15/2001	22:36
3063	00340(0)	CHEMICAL OXYGEN DEMAND (EPA)	EPA-410.4	mg/L	45		08/15/2001	
3025	01042(1)	COPPER TOTAL (ICP/T)	EPA-200.7	ug/L	15		08/15/2001	22:36
3157	99870(8)	DIGESTION IN BOTTLE	EPA-1638		1		08/01/2001	23:01
3001	99899(0)	JULIAN LOGIN DATE	- -	Number	2001213		Calculated	
3029	01051(4)	LEAD TOTAL (ICP/T)	EPA-200.7	ug/L	8		08/15/2001	22:36
0072	00600(A)	NITROGEN AS N TOTAL	I-3556-77	mg/L	3		Calculated	
0278	71887(A)	NITROGEN AS NO3 TOTAL	- -	mg/L	13		Calculated	
1986	00625(D)	NITROGEN NH3+ORG-N TOTAL	I-4552-84	mg/L	2.3		08/10/2001	10:40
3071	00610(F)	NITROGEN NH3-N TOTAL	I-4522-85	mg/L	0.78		08/02/2001	09:55
0095	71845(A)	NITROGEN NH4-NH4 TOTAL	- -	mg/L	1		Calculated	
3073	00630(E)	NITROGEN NO2+NO3-N TOTAL	I-4545-84	mg/L	0.63		08/10/2001	09:50
0071	00605(A)	NITROGEN ORG-N TOTAL	I-4548-78	mg/L	1.6		Calculated	
0068	00403(A)	PH (LABORATORY)	I-1586-85	pH Units	7.15		09/14/2001	
1983	00666(D)	PHOSPHORUS AS P DISSOLVED	I-2600-84	mg/L	0.23		08/08/2001	09:30
1984	00665(D)	PHOSPHORUS AS P TOTAL	I-4600-84	mg/L	0.43		08/08/2001	09:30
3077	71888( )	PHOSPHORUS DISS AS PO4		mg/L	0.69		Calculated	
3702	00667(0)	PHOSPHORUS SUSPENDED	- -	mg/L	0.2		Calculated	
0130	71886(A)	PHOSPHORUS TOTAL AS PO4	- -	mg/L	1.3		Calculated	
3000	99898(0)	QWSU LAB ID NUMBER	- -	Number	200109184		Calculated	
0027	70300(A)	RESIDUE DISSOLVED AT 180 C	I-1750-84	mg/L	64		08/01/2001	
0169	00530(B)	RESIDUE TOT NON-FILT AT 105C	I-3765-84	mg/L	110		08/01/2001	
3056	01092(1)	ZINC TOTAL (ICP/T)	EPA-200.7	ug/L	87		08/15/2001	22:36

Lab Review Comment(s) for Lab Id: 200109188

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<COMMENT> 3014 (01027) CADMIUM TOTAL (ICP/T)          Actual value known to be less than value shown
<COMMENT> 0027 (70300) RESIDUE DISSOLVED AT 180 C     Analysis performed in duplicate
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Parameter Name	Lab Code	Watstore Code	Method	Detection Level	Bottle Requirements
RESIDUE DISSOLVED AT 180 C	27	70300(A)	I-1750-85	1 mg/L	FU
PH (LABORATORY)	68	00403(A)	I-1586-85	0.1 pH Units	RU
ALKALINITY TOT AS CACO3 (LAB)	70	90410(A)	I-2030-85	1 mg/L	RU
RESIDUE TOT NON-FILT AT 105C	169	00530(B)	I-3765-85	1 mg/L	SUSO
PHOSPHORUS AS P DISSOLVED	1983	00666(D)	I-2600-85	0.02 mg/L	FCA
PHOSPHORUS AS P TOTAL	1984	00665(D)	I-4600-85	0.02 mg/L	WCA
NITROGEN NH3+ORG-N TOTAL	1986	00625(D)	I-4552-85	0.2 mg/L	WCA
CADMIUM TOTAL (ICP/T)	3014	01027(4)	EPA-200.7	0.5 ug/L	RA
COPPER TOTAL (ICP/T)	3025	01042(1)	EPA-200.7	2 ug/L	RA
LEAD TOTAL (ICP/T)	3029	01051(4)	EPA-200.7	2 ug/L	RA
ZINC TOTAL (ICP/T)	3056	01092(1)	EPA-200.7	2 ug/L	RA
CHEMICAL OXYGEN DEMAND (EPA)	3063	00340(0)	EPA-410.4	5 mg/L	COD
NITROGEN NH3-N TOTAL	3071	00610(F)	I-4522-85	0.01 mg/L	RCC
NITROGEN NO2-N TOTAL	3072	00615(B)	I-4540-85	0.01 mg/L	RCC
NITROGEN NO2+NO3-N TOTAL	3073	00630(E)	I-4545-85	0.02 mg/L	RCC
PHOSPHORUS PO4-P TOTAL	3074	70507(H)	I-4601-85	0.01 mg/L	RCC

200109188 BUTLER 07-29-2001 2315

200109188	70300	RESIDUE DISSOLVED AT 180 C	Cal. Blk.	ROE1000146	Value:	-0.400 < 2x Detection Limit <PASSED>
200109188	70300	RESIDUE DISSOLVED AT 180 C	Duplicate	ROE1000146	Value:	63.000 1.6% RSD <PASSED>
200109188	70300	RESIDUE DISSOLVED AT 180 C	QA Sample	ROE1000146	Value:	367.800 Num. Sdev (0.1) <PASSED>
200109188	00403	PH (LABORATORY)	Duplicate	PHS20840	Value:	7.560 0.3% RSD <PASSED>
200109188	90410	ALKALINITY TOT AS CACO3 (LAB)	Duplicate	ALK5012211	Value:	126.526 0.2% RSD <PASSED>
200109188	90410	ALKALINITY TOT AS CACO3 (LAB)	Duplicate	ALK5012211	Value:	7.723 5.9% RSD <PASSED>
200109188	90410	ALKALINITY TOT AS CACO3 (LAB)	QA Sample	ALK5012211	Value:	6.155 Num. Sdev (0.1) <PASSED>
200109188	90410	ALKALINITY TOT AS CACO3 (LAB)	QA Sample	ALK5012211	Value:	111.224 Num. Sdev (0.1) <PASSED>
200109188	90410	ALKALINITY TOT AS CACO3 (LAB)	QA Sample	ALK5012211	Value:	6.485 Num. Sdev (0.3) <PASSED>
200109188	00530	RESIDUE TOT NON-FILT AT 105C	Cal. Blk.	RES6000178	Value:	0.400 < 2x Detection Limit <PASSED>
200109188	00530	RESIDUE TOT NON-FILT AT 105C	Duplicate	RES6000178	Value:	110.300 3.1% RSD <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	1.989 0.6% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	1.525 1.6% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.986 1.4% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.498 0.4% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.242 3.4% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.103 2.5% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.050 0.0% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.023 15.0% Deviation <FAILED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Corr Coef	NUT4000076	Value:	0.9999 <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	1.988 0.6% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	1.510 0.7% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	0.495 1.0% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	0.486 2.8% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	0.992 0.8% Deviation <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.053 Num. Sdev (0.7) <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.893 Num. Sdev (0.9) <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.188 Num. Sdev (1.0) <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	1.661 Num. Sdev (0.2) <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.421 Num. Sdev (1.1) <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.417 Num. Sdev (1.3) <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Blank	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Blank	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	92.3% Recovery <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	97.4% Recovery <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	105.1% Recovery <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	102.5% Recovery <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	102.5% Recovery <PASSED>
200109188	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	100.0% Recovery <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	1.989 0.6% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	1.525 1.6% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.986 1.4% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.498 0.4% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.242 3.4% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.103 2.5% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.050 0.0% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.023 15.0% Deviation <FAILED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Corr Coef	NUT4000076	Value:	0.9999 <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Duplicate	NUT4000076	Value:	0.014 7.7% RSD <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Duplicate	NUT4000076	Value:	0.083 6.4% RSD <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Duplicate	NUT4000076	Value:	0.214 0.9% RSD <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	1.988 0.6% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	1.510 0.7% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	0.495 1.0% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	0.486 2.8% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	0.992 0.8% Deviation <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.053 Num. Sdev (0.7) <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.893 Num. Sdev (0.9) <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.188 Num. Sdev (1.0) <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	1.661 Num. Sdev (0.2) <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.421 Num. Sdev (1.1) <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.417 Num. Sdev (1.3) <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Blank	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Blank	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	92.3% Recovery <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	97.4% Recovery <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	105.1% Recovery <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	102.5% Recovery <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	102.5% Recovery <PASSED>
200109188	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	100.0% Recovery <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000079	Value:	4.006 0.2% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000079	Value:	3.005 0.2% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000079	Value:	1.942 2.9% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000079	Value:	1.061 6.0% Deviation <FAILED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000079	Value:	0.538 7.7% Deviation <FAILED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000079	Value:	0.209 4.5% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Blk.	NUT5000079	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Blk.	NUT5000079	Value:	0.000 < 2x Detection Limit <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Blk.	NUT5000079	Value:	0.000 < 2x Detection Limit <PASSED>

200109188	00625	NITROGEN NH3+ORG-N TOTAL	Corr Coef	NUT5000079	Value:	0.9988	<PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Duplicate	NUT5000079	Value:	1.288	8.5% RSD <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Duplicate	NUT5000079	Value:	1.459	8.6% RSD <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Duplicate	NUT5000079	Value:	0.618	7.7% RSD <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	4.008	0.2% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	0.521	4.2% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	4.024	0.6% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	3.008	0.3% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	0.517	3.4% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	0.192	4.0% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	1.943	2.8% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	3.024	0.8% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	4.052	1.3% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	3.087	2.9% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	1.974	1.3% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000079	Value:	1.944	2.8% Deviation <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	QA Sample	NUT5000079	Value:	0.517	Num. Sdev (0.0) <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	QA Sample	NUT5000079	Value:	0.527	Num. Sdev (0.0) <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Blank	NUT5000079	Value:	0.000	< 2x Detection Limit <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Blank	NUT5000079	Value:	0.000	< 2x Detection Limit <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Blank	NUT5000079	Value:	0.000	< 2x Detection Limit <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000079	Value:	107.0%	Recovery <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000079	Value:	97.0%	Recovery <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000079	Value:	100.0%	Recovery <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000079	Value:	90.0%	Recovery <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000079	Value:	110.0%	Recovery <PASSED>
200109188	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000079	Value:	101.0%	Recovery <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Cal. Std.	CD11012272	Value:	101.400	1.4% Deviation <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Cal. Std.	CD11012272	Value:	204.000	2.0% Deviation <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Cal. Std.	CD11012272	Value:	513.000	2.6% Deviation <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Cal. Std.	CD11012272	Value:	1022.100	2.2% Deviation <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Cal. Blk.	CD11012272	Value:	0.073	< 2x Detection Limit <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Corr Coef	CD11012272	Value:	1.0000	<PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Imd Std.	CD11012272	Value:	208.700	4.3% Deviation <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Imd Std.	CD11012272	Value:	1035.500	3.5% Deviation <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	1.891	Num. Sdev (1.0) <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	11.130	Num. Sdev (0.3) <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	22.750	Num. Sdev (0.1) <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	5.547	Num. Sdev (0.6) <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	6.247	Num. Sdev (0.3) <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Blank	CD11012272	Value:	-0.044	< 2x Detection Limit <PASSED>
200109188	01027	CADMIUM TOTAL (ICP/T)	Spike	CD11012272	Value:	107.5%	Recovery <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Cal. Std.	CU11012272	Value:	98.770	1.2% Deviation <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Cal. Std.	CU11012272	Value:	197.900	1.0% Deviation <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Cal. Std.	CU11012272	Value:	500.800	0.2% Deviation <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Cal. Std.	CU11012272	Value:	1002.500	0.3% Deviation <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Cal. Blk.	CU11012272	Value:	-0.100	< 2x Detection Limit <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Corr Coef	CU11012272	Value:	1.0000	<PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Imd Std.	CU11012272	Value:	199.700	0.2% Deviation <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Imd Std.	CU11012272	Value:	1005.900	0.6% Deviation <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	7.958	Num. Sdev (0.0) <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	39.310	Num. Sdev (0.5) <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	88.950	Num. Sdev (0.8) <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	26.510	Num. Sdev (1.0) <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	22.390	Num. Sdev (1.1) <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Blank	CU11012272	Value:	-0.025	< 2x Detection Limit <PASSED>
200109188	01042	COPPER TOTAL (ICP/T)	Spike	CU11012272	Value:	108.0%	Recovery <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Cal. Std.	PB11012272	Value:	100.400	0.4% Deviation <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Cal. Std.	PB11012272	Value:	200.600	0.3% Deviation <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Cal. Std.	PB11012272	Value:	506.800	1.4% Deviation <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Cal. Std.	PB11012272	Value:	1013.100	1.3% Deviation <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Cal. Blk.	PB11012272	Value:	0.189	< 2x Detection Limit <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Corr Coef	PB11012272	Value:	1.0000	<PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Imd Std.	PB11012272	Value:	203.800	1.9% Deviation <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Imd Std.	PB11012272	Value:	1022.600	2.3% Deviation <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	9.286	Num. Sdev (0.4) <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	18.290	Num. Sdev (0.3) <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	27.660	Num. Sdev (0.1) <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	6.840	Num. Sdev (0.1) <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	18.480	Num. Sdev (0.1) <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Blank	PB11012272	Value:	0.640	< 2x Detection Limit <PASSED>
200109188	01051	LEAD TOTAL (ICP/T)	Spike	PB11012272	Value:	107.7%	Recovery <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Cal. Std.	ZN11012272	Value:	103.600	3.6% Deviation <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Cal. Std.	ZN11012272	Value:	208.300	4.2% Deviation <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Cal. Std.	ZN11012272	Value:	522.400	4.5% Deviation <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Cal. Std.	ZN11012272	Value:	1037.700	3.8% Deviation <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Cal. Blk.	ZN11012272	Value:	-0.274	< 2x Detection Limit <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Corr Coef	ZN11012272	Value:	1.0000	<PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Imd Std.	ZN11012272	Value:	1044.200	4.4% Deviation <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	4.665	Num. Sdev (0.5) <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	58.690	Num. Sdev (0.0) <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	55.410	Num. Sdev (0.5) <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	23.380	Num. Sdev (0.0) <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	76.550	Num. Sdev (1.0) <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Blank	ZN11012272	Value:	0.065	< 2x Detection Limit <PASSED>
200109188	01092	ZINC TOTAL (ICP/T)	Spike	ZN11012272	Value:	110.0%	Recovery <PASSED>
200109188	00340	CHEMICAL OXYGEN DEMAND (EPA)	Imd Std.	COD10221	Value:	79.682	0.4% Deviation <PASSED>
200109188	00340	CHEMICAL OXYGEN DEMAND (EPA)	Imd Std.	COD10221	Value:	101.760	1.8% Deviation <PASSED>

200109188	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000189	Value:	1.000	0.0%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000189	Value:	0.501	0.2%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000189	Value:	0.250	0.0%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000189	Value:	0.098	2.5%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000189	Value:	0.002	60.0%	Deviation <FAILED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000189	Value:	0.002	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000189	Value:	0.002	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000189	Value:	0.002	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000189	Value:	0.002	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000189	Value:	0.002	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Corr Coef	NUT0000189	Value:	1.0000	<PASSED>	
200109188	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000189	Value:	0.244	2.4%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000189	Value:	1.005	0.5%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000189	Value:	0.104	4.0%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000189	Value:	0.248	0.8%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000189	Value:	1.020	2.0%	Deviation <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000189	Value:	0.096	Num. Sdev (0.9)	<PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000189	Value:	0.510	Num. Sdev (0.2)	<PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000189	Value:	0.189	Num. Sdev (1.2)	<PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000189	Value:	0.092	Num. Sdev (0.7)	<PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000189	Value:	0.085	Num. Sdev (0.4)	<PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000189	Value:	0.007	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000189	Value:	0.002	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000189	Value:	0.005	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000189	Value:	0.006	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000189	Value:	0.005	< 2x	Detection Limit <PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Spike	NUT0000189	Value:	100.0%	Recovery	<PASSED>
200109188	00610	NITROGEN NH3-N TOTAL	Spike	NUT0000189	Value:	105.0%	Recovery	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Std.	NUT2000185	Value:	0.998	0.2%	Deviation <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Std.	NUT2000185	Value:	0.504	0.7%	Deviation <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Std.	NUT2000185	Value:	0.254	1.4%	Deviation <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Std.	NUT2000185	Value:	0.100	0.0%	Deviation <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Blk.	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Blk.	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Blk.	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Blk.	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Corr Coef	NUT2000185	Value:	1.0000	<PASSED>	
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000185	Value:	0.907	1.1%	RSD <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000185	Value:	4.697	1.3%	RSD <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000185	Value:	0.473	0.7%	RSD <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000185	Value:	0.748	1.2%	RSD <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000185	Value:	0.324	0.2%	RSD <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000185	Value:	0.325	0.6%	RSD <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000185	Value:	0.144	2.9%	RSD <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Imd Std.	NUT2000185	Value:	0.102	2.0%	Deviation <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000185	Value:	0.723	Num. Sdev (0.3)	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000185	Value:	0.728	Num. Sdev (0.2)	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000185	Value:	0.064	Num. Sdev (0.1)	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000185	Value:	0.210	Num. Sdev (0.5)	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000185	Value:	0.066	Num. Sdev (0.0)	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000185	Value:	0.000	< 2x	Detection Limit <PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Spike	NUT2000185	Value:	105.0%	Recovery	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Spike	NUT2000185	Value:	100.0%	Recovery	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Spike	NUT2000185	Value:	100.0%	Recovery	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Spike	NUT2000185	Value:	90.0%	Recovery	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Spike	NUT2000185	Value:	105.0%	Recovery	<PASSED>
200109188	00630	NITROGEN NO2+NO3-N TOTAL	Spike	NUT2000185	Value:	100.0%	Recovery	<PASSED>

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Maricopa County -Flood Control District 2801 West Durango Street Phoenix, AZ 85009 Attention: Julie Cox	Client Project ID: Glendale-NPDES STORMWATER Report Number: PKG0501	Sampled: 07/29/01 Received: 07/30/01 Issued: 8/17/01 Revised: 09/11/01	

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX
PKG0501-01	BUTLER-COMP	Water
PKG0501-02	BUTLER-COMP	Water

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

OBSERVATIONS: This report has been revised to include a Corrective Action Report omitted from the original report. The MS/MSD recoveries for Benzidine and Hexachlorocyclopentadiene were below the MDL level, therefore not usable. See Corrective Action Report.

SUBCONTRACTED: Analyses were subcontracted to Transwest Geochem - 3725 E. Atlanta Ave., Suite 2, Pheonix, AZ 85040 (AZ0133), and NEL Laboratories - 3021 S. 35th Street, Suite B-6, Phoenix, AZ. Results are attached.

QA/QC CRITERIA: The N2 flag on the 625 indicates that the Matrix Spike recovery was outside the method control limits. See Corrective Action Report.
The R1 flag on the cyanide indicates that the RPD exceeded the method control limit. See Corrective Action Report.

EXPLANATION OF DATA QUALIFIERS: The D1 flag on the fluoride indicates that the reporting limit was raised due to sample matrix effects.

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Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Acenaphthene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Acenaphthylene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Anthracene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Benzidine	EPA 625	P1G3025	100	ND	1	7/30/01	8/3/01	
Benz(a)anthracene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Benzo(b,k)fluoranthene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Benzo(g,h,i)perylene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Benzo(a)pyrene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Bis(2-chloroethoxy)methane	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Bis(2-chloroethyl)ether	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Bis(2-chloroisopropyl)ether	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Bis(2-ethylhexyl)phthalate	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
4-Bromophenyl phenyl ether	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Butyl benzyl phthalate	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2-Chloronaphthalene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
4-Chloro-3-methylphenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2-Chlorophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
4-Chlorophenyl phenyl ether	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Chrysene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Dibenz(a,h)anthracene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Di-n-butyl phthalate	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
1,3-Dichlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
1,4-Dichlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
1,2-Dichlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
3,3-Dichlorobenzidine	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
2,4-Dichlorophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Diethyl phthalate	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2,4-Dimethylphenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Dimethyl phthalate	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
4,6-Dinitro-2-methylphenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2,4-Dinitrophenol	EPA 625	P1G3025	30	ND	1	7/30/01	8/3/01	
2,4-Dinitrotoluene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2,6-Dinitrotoluene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Di-n-octyl phthalate	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
1,2-Diphenylhydrazine	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Fluoranthene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Fluorene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Hexachlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Hexachlorobutadiene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Hexachlorocyclopentadiene	EPA 625	P1G3025	30	ND	1	7/30/01	8/3/01	
Hexachloroethane	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Indeno(1,2,3-cd)pyrene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Isophorone	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Naphthalene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Nitrobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2-Nitrophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
-Nitrophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
-Nitrosodiphenylamine	EPA 625	P1G3025	30	ND	1	7/30/01	8/3/01	
n-Nitroso-di-n-propylamine	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Pentachlorophenol	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
henanthrene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
henol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Pyrene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
,2,4-Trichlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
,4,6-Trichlorophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
n-Nitrosodimethylamine	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Surrogate: 2-Fluorophenol (20-120%)				*68.8 %*				
urrogate: Phenol-d6 (15-115%)				*74.1 %*				
urrogate: 2,4,6-Tribromophenol (35-135%)				*76.9 %*				
Surrogate: Nitrobenzene-d5 (25-120%)				*73.2 %*				
Surrogate: 2-Fluorobiphenyl (25-145%)				*85.4 %*				
urrogate: Terphenyl-d14 (40-130%)				*78.6 %*				

DEL MAR ANALYTICAL, PHOENIX (AZ0426

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Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

TOTAL RECOVERABLE METALS

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Antimony	EPA 200.9	P1H0306	0.0040	ND	1	8/3/01	8/5/01	
Beryllium	EPA 200.9	P1H0306	0.00050	ND	1	8/3/01	8/8/01	
Cadmium	EPA 200.9	P1H0306	0.00050	ND	1	8/3/01	8/5/01	
Calcium	EPA 200.7	P1G3119	2.0	**10**	1	7/31/01	8/1/01	
Chromium	EPA 200.9	P1H0306	0.0040	**0.0050**	1	8/3/01	8/10/01	
Copper	EPA 200.9	P1H0306	0.0040	**0.016**	1	8/3/01	8/8/01	
Lead	EPA 200.9	P1H0306	0.0020	**0.011**	1	8/3/01	8/8/01	
Magnesium	EPA 200.7	P1G3119	0.50	**2.8**	1	7/31/01	8/1/01	
Mercury	EPA 245.1	P1H0327	0.00020	ND	1	8/3/01	8/3/01	
Nickel	EPA 200.9	P1H0306	0.0040	**0.0069**	1	8/3/01	8/5/01	
Potassium	EPA 258.1	P1G3119	1.0	**3.0**	1	7/31/01	8/2/01	
Selenium	EPA 200.9	P1H0306	0.0040	ND	1	8/3/01	8/5/01	
Silver	EPA 200.9	P1H0306	0.0050	ND	1	8/3/01	8/8/01	
Sodium	EPA 273.1	P1G3119	5.0	ND	1	7/31/01	8/2/01	
Thallium	EPA 200.9	P1H0306	0.0020	ND	1	8/3/01	8/5/01	
Zinc	EPA 200.7	P1G3119	0.050	**0.080**	1	7/31/01	8/1/01	

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

DISSOLVED METALS

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-02 (BUTLER-COMP - Water)								
Antimony, Dissolved	EPA 200.9	P1H0210	0.0040	ND	1	8/2/01	8/4/01	
Cadmium, Dissolved	EPA 200.9	P1H0210	0.00050	ND	1	8/2/01	8/4/01	
Chromium, Dissolved	EPA 200.9	P1H0210	0.0040	ND	1	8/2/01	8/4/01	
Lead, Dissolved	EPA 200.9	P1H0210	0.0020	ND	1	8/2/01	8/4/01	
Mercury, Dissolved	EPA 245.1	P1H0621	0.00020	ND	1	8/6/01	8/6/01	
Nickel, Dissolved	EPA 200.9	P1H0210	0.0040	ND	1	8/2/01	8/5/01	
Selenium, Dissolved	EPA 200.9	P1H0210	0.0040	ND	1	8/2/01	8/4/01	
Thallium, Dissolved	EPA 200.9	P1H0210	0.0020	ND	1	8/2/01	8/7/01	
Zinc, Dissolved	EPA 200.7	P1H0217	0.050	ND	1	8/2/01	8/6/01	

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Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
			mg/l	mg/l				
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Alkalinity as CaCO3	SM2320B	P1H0805	5.0	**24**	1	8/8/01	8/8/01	
Ammonia-N	EPA 350.3	P1H0211	0.050	**0.80**	1	8/2/01	8/2/01	
			%	%				
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Cation/Anion Balance	Calculation	P1H1313	NA	**18.0**	1	8/13/01	8/13/01	
			mg/l	mg/l				
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Chemical Oxygen Demand	EPA 410.4	P1H0727	20	**91**	1	8/7/01	8/8/01	
Chloride	EPA 300.0	P1G3015	0.50	**4.0**	1	7/30/01	7/30/01	
Fluoride	EPA 300.0	P1G3015	1.0	ND	10	7/30/01	7/30/01	D1
Hardness (CaCO3)	SM2340B	P1G3119	1.0	**37**	1	7/31/01	8/1/01	
Nitrate-N	EPA 300.0	P1G3015	0.10	**0.56**	1	7/30/01	7/30/01	
Nitrate/Nitrite-N	EPA 300.0	P1G3015	0.10	**0.59**	1	7/30/01	7/30/01	
Nitrate/Nitrite-N	EPA 353.2	P1H1316	0.10	**0.57**	2	8/13/01	8/13/01	
Nitrite-N	EPA 300.0	P1G3015	0.10	ND	1	7/30/01	7/30/01	
Orthophosphate	EPA 365.3	P1G3117	0.050	**0.55**	1	7/31/01	7/31/01	
Phosphorous, Dissolved	EPA 365.3	P1H0319	0.050	**0.46**	1	8/3/01	8/3/01	
Phosphorus	EPA 365.3	P1H0319	0.050	**0.50**	1	8/3/01	8/3/01	
			umhos/cm	umhos/cm				
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Specific Conductance	SM2510B	P1G3110	2.0	**87**	1	7/31/01	7/31/01	
			mg/l	mg/l				
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Sulfate	EPA 300.0	P1G3015	0.50	**3.4**	1	7/30/01	7/30/01	
Total Cyanide	SM4500-CN,C-E	P1H0719	0.020	ND	1	8/7/01	8/8/01	
Total Dissolved Solids	SM2540C	P1H0209	20	**66**	1	8/2/01	8/2/01	
Total Suspended Solids	EPA 160.2	P1H0233	20	**120**	1	8/2/01	8/2/01	

The reporting limit for this sample was adjusted by a factor of 2 to account for the applicable preparation factor.

DEL MAR ANALYTICAL, PHOENIX (AZ0426

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

NITROGEN, ORGANIC (Calculation)

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Organic Nitrogen	Calculation	P1H0733	0.50	**1.5**	1	8/7/01	8/7/01	

DEL MAR ANALYTICAL, PHOENIX (AZ0426

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Maricopa County -Flood Control District
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Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER
Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

INORGANICS

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Total Kjeldahl Nitrogen	EPA 351.3	C1H0607	0.18	**2.3**	1.8	8/6/01	8/6/01	

The reporting limit for this sample was adjusted by a factor of 1.85 to account for the applicable preparation factor.

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Aldrin	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
alpha-BHC	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
beta-BHC	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
delta-BHC	EPA 608	I1H0125	0.20	ND	1.05	8/1/01	8/2/01	
gamma-BHC (Lindane)	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Chlordane	EPA 608	I1H0125	1.0	ND	1.05	8/1/01	8/2/01	
4,4'-DDD	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
4,4'-DDE	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
4,4'-DDT	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Dieldrin	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Endosulfan I	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Endosulfan II	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Endosulfan sulfate	EPA 608	I1H0125	0.20	ND	1.05	8/1/01	8/2/01	
Endrin	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Endrin aldehyde	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	V1
Endrin ketone	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Heptachlor	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Heptachlor epoxide	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Methoxychlor	EPA 608	I1H0125	0.10	ND	1.05	8/1/01	8/2/01	
Toxaphene	EPA 608	I1H0125	5.0	ND	1.05	8/1/01	8/2/01	
Surrogate: Tetrachloro-m-xylene (30-120%)				*88.0 %*				
Surrogate: Decachlorobiphenyl (30-120%)				*77.8 %*				

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Linda Eshelman
Project Manager

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TOTAL PCBS (EPA 608)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Aroclor 1016	EPA 608	I1H0125	1.0	ND	1.05	8/1/01	8/2/01	
Aroclor 1221	EPA 608	I1H0125	1.0	ND	1.05	8/1/01	8/2/01	
Aroclor 1232	EPA 608	I1H0125	1.0	ND	1.05	8/1/01	8/2/01	
Aroclor 1242	EPA 608	I1H0125	1.0	ND	1.05	8/1/01	8/2/01	
Aroclor 1248	EPA 608	I1H0125	1.0	ND	1.05	8/1/01	8/2/01	
Aroclor 1254	EPA 608	I1H0125	1.0	ND	1.05	8/1/01	8/2/01	
Aroclor 1260	EPA 608	I1H0125	1.0	ND	1.05	8/1/01	8/2/01	
Surrogate: Decachlorobiphenyl (30-120%)				*77.8 %*				

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Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

INORGANICS

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0501-01 (BUTLER-COMP - Water)								
Total Organic Carbon	EPA 415.1	I1G3166	1.0	**19**	1	7/31/01	7/31/01	

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Blank Analyzed: 08/01/01 (P1G3025-BLK1)										
Acenaphthene	ND	10	ug/l							
Acenaphthylene	ND	10	ug/l							
Anthracene	ND	10	ug/l							
Benzidine	ND	100	ug/l							
Benz(a)anthracene	ND	10	ug/l							
Benzo(b,k)fluoranthene	ND	10	ug/l							
Benzo(g,h,i)perylene	ND	20	ug/l							
Benzo(a)pyrene	ND	20	ug/l							
Bis(2-chloroethoxy)methane	ND	10	ug/l							
Bis(2-chloroethyl)ether	ND	10	ug/l							
Bis(2-chloroisopropyl)ether	ND	10	ug/l							
Bis(2-ethylhexyl)phthalate	ND	20	ug/l							
4-Bromophenyl phenyl ether	ND	20	ug/l							
Butyl benzyl phthalate	ND	10	ug/l							
2-Chloronaphthalene	ND	10	ug/l							
4-Chloro-3-methylphenol	ND	10	ug/l							
2-Chlorophenol	ND	10	ug/l							
4-Chlorophenyl phenyl ether	ND	10	ug/l							
Chrysene	ND	10	ug/l							
Dibenz(a,h)anthracene	ND	20	ug/l							
Di-n-butyl phthalate	ND	10	ug/l							
1,3-Dichlorobenzene	ND	10	ug/l							
1,4-Dichlorobenzene	ND	10	ug/l							
1,2-Dichlorobenzene	ND	10	ug/l							
3,3-Dichlorobenzidine	ND	20	ug/l							
2,4-Dichlorophenol	ND	10	ug/l							
Diethyl phthalate	ND	10	ug/l							
2,4-Dimethylphenol	ND	10	ug/l							
Dimethyl phthalate	ND	10	ug/l							
4,6-Dinitro-2-methylphenol	ND	10	ug/l							
2,4-Dinitrophenol	ND	30	ug/l							
2,4-Dinitrotoluene	ND	10	ug/l							
2,6-Dinitrotoluene	ND	10	ug/l							
Di-n-octyl phthalate	ND	20	ug/l							
1,2-Diphenylhydrazine	ND	10	ug/l							

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Blank Analyzed: 08/01/01 (P1G3025-BLK1)										
Fluoranthene	ND	10	ug/l							
Fluorene	ND	10	ug/l							
Hexachlorobenzene	ND	10	ug/l							
Hexachlorobutadiene	ND	20	ug/l							
Hexachlorocyclopentadiene	ND	30	ug/l							
Hexachloroethane	ND	10	ug/l							
Indeno(1,2,3-cd)pyrene	ND	20	ug/l							
Isophorone	ND	10	ug/l							
Naphthalene	ND	10	ug/l							
Nitrobenzene	ND	10	ug/l							
2-Nitrophenol	ND	10	ug/l							
4-Nitrophenol	ND	10	ug/l							
n-Nitrosodiphenylamine	ND	30	ug/l							
N-Nitroso-di-n-propylamine	ND	10	ug/l							
Pentachlorophenol	ND	20	ug/l							
Phenanthrene	ND	10	ug/l							
Phenol	ND	10	ug/l							
Pyrene	ND	10	ug/l							
1,2,4-Trichlorobenzene	ND	10	ug/l							
2,4,6-Trichlorophenol	ND	10	ug/l							
N-Nitrosodimethylamine	ND	10	ug/l							
Surrogate: 2-Fluorophenol	*57.4*		*ug/l*	*100*		*57.4*	*20-120*			
Surrogate: Phenol-d6	*61.1*		*ug/l*	*100*		*61.1*	*15-115*			
Surrogate: 2,4,6-Tribromophenol	*79.7*		*ug/l*	*100*		*79.7*	*35-135*			
Surrogate: Nitrobenzene-d5	*44.0*		*ug/l*	*50.0*		*88.0*	*25-120*			
Surrogate: 2-Fluorobiphenyl	*40.0*		*ug/l*	*50.0*		*80.0*	*25-145*			
Surrogate: Terphenyl-d14	*42.5*		*ug/l*	*50.0*		*85.0*	*40-130*			

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Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
LCS Analyzed: 08/01/01 (P1G3025-BS1)										
Acenaphthene	46.6	10	ug/l	50.0		93.2	47-145			
Acenaphthylene	40.4	10	ug/l	50.0		80.8	33-145			
Anthracene	49.4	10	ug/l	50.0		98.8	27-133			
Benzidine	ND	100	ug/l	50.0			0-200			N2
Benz(a)anthracene	49.2	10	ug/l	50.0		98.4	33-143			
Benzo(b,k)fluoranthene	95.1	10	ug/l	100		95.1	24-149			
Benzo(g,h,i)perylene	50.9	20	ug/l	50.0		102	5-219			
Benzo(a)pyrene	45.5	20	ug/l	50.0		91.0	17-163			
Bis(2-chloroethoxy)methane	46.6	10	ug/l	50.0		93.2	33-184			
Bis(2-chloroethyl)ether	41.3	10	ug/l	50.0		82.6	12-158			
Bis(2-chloroisopropyl)ether	40.7	10	ug/l	50.0		81.4	36-166			
Bis(2-ethylhexyl)phthalate	74.2	20	ug/l	50.0		148	8-158			
4-Bromophenyl phenyl ether	49.5	20	ug/l	50.0		99.0	53-127			
Butyl benzyl phthalate	50.1	10	ug/l	50.0		100	5-152			
2-Chloronaphthalene	45.2	10	ug/l	50.0		90.4	60-118			
4-Chloro-3-methylphenol	45.8	10	ug/l	50.0		91.6	22-147			
2-Chlorophenol	41.0	10	ug/l	50.0		82.0	23-134			
4-Chlorophenyl phenyl ether	45.6	10	ug/l	50.0		91.2	25-152			
Chrysene	49.6	10	ug/l	50.0		99.2	17-168			
Dibenz(a,h)anthracene	50.4	20	ug/l	50.0		101	5-227			
Di-n-butyl phthalate	46.3	10	ug/l	50.0		92.6	1-118			
1,3-Dichlorobenzene	36.3	10	ug/l	50.0		72.6	5-172			
1,4-Dichlorobenzene	38.2	10	ug/l	50.0		76.4	20-124			
1,2-Dichlorobenzene	38.5	10	ug/l	50.0		77.0	32-129			
3,3-Dichlorobenzidine	56.0	20	ug/l	50.0		112	5-262			
2,4-Dichlorophenol	49.9	10	ug/l	50.0		99.8	39-135			
Diethyl phthalate	38.0	10	ug/l	50.0		76.0	5-114			
2,4-Dimethylphenol	30.9	10	ug/l	50.0		61.8	32-119			
Dimethyl phthalate	30.5	10	ug/l	50.0		61.0	5-112			
4,6-Dinitro-2-methylphenol	45.1	10	ug/l	50.0		90.2	5-181			
2,4-Dinitrophenol	40.5	30	ug/l	50.0		81.0	5-191			
2,4-Dinitrotoluene	50.0	10	ug/l	50.0		100	39-139			
2,6-Dinitrotoluene	49.0	10	ug/l	50.0		98.0	50-158			
Di-n-octyl phthalate	48.8	20	ug/l	50.0		97.6	4-146			
1,2-Diphenylhydrazine	39.3	10	ug/l	50.0		78.6	0-200			
Fluoranthene	46.6	10	ug/l	50.0		93.2	26-137			

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Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
LCS Analyzed: 08/01/01 (P1G3025-BS1)										
Chlorobenzene	**47.2**	10	ug/l	50.0		94.4	59-121			
Hexachlorobenzene	**47.6**	10	ug/l	50.0		95.2	5-152			
Hexachlorobutadiene	**45.0**	20	ug/l	50.0		90.0	24-116			
Hexachlorocyclopentadiene	ND	30	ug/l	50.0			0-200			N2
Hexachloroethane	**38.7**	10	ug/l	50.0		77.4	40-113			
Indeno(1,2,3-cd)pyrene	**51.9**	20	ug/l	50.0		104	5-171			
Isophorone	**51.0**	10	ug/l	50.0		102	21-196			
Naphthalene	**39.9**	10	ug/l	50.0		79.8	21-133			
Nitrobenzene	**44.0**	10	ug/l	50.0		88.0	35-180			
2-Nitrophenol	**47.3**	10	ug/l	50.0		94.6	29-182			
4-Nitrophenol	**37.8**	10	ug/l	50.0		75.6	0.01-132			
N-Nitrosodiphenylamine	**48.4**	30	ug/l	50.0		96.8	0-200			
n-Nitroso-di-n-propylamine	**39.7**	10	ug/l	50.0		79.4	0.01-230			
Pentachlorophenol	**46.2**	20	ug/l	50.0		92.4	14-176			
Phenanthrene	**50.2**	10	ug/l	50.0		100	54-120			
Phenol	**39.3**	10	ug/l	50.0		78.6	5-112			
Pyrene	**48.3**	10	ug/l	50.0		96.6	52-115			
1,2,4-Trichlorobenzene	**46.1**	10	ug/l	50.0		92.2	44-142			
2,4,6-Trichlorophenol	**95.2**	10	ug/l	100		95.2	37-144			
n-Nitrosodimethylamine	**36.7**	10	ug/l	50.0		73.4	0-200			
Surrogate: 2-Fluorophenol	*66.0*		*ug/l*	*100*		*66.0*	*20-120*			
Surrogate: Phenol-d6	*74.8*		*ug/l*	*100*		*74.8*	*15-115*			
Surrogate: 2,4,6-Tribromophenol	*90.6*		*ug/l*	*100*		*90.6*	*35-135*			
Surrogate: Nitrobenzene-d5	*42.4*		*ug/l*	*50.0*		*84.8*	*25-120*			
Surrogate: 2-Fluorobiphenyl	*45.4*		*ug/l*	*50.0*		*90.8*	*25-145*			
Surrogate: Terphenyl-d14	*44.7*		*ug/l*	*50.0*		*89.4*	*40-130*			
Matrix Spike Analyzed: 08/01/01 (P1G3025-MS1)					**Source: PKG0480-01**					
Acenaphthene	**44.0**	10	ug/l	50.0	ND	88.0	47-145			
Acenaphthylene	**40.3**	10	ug/l	50.0	ND	80.6	33-145			
Anthracene	**46.2**	10	ug/l	50.0	ND	92.4	27-133			
Benzidine	ND	100	ug/l	50.0	ND		0-200			M2,N2
Benz(a)anthracene	**48.1**	10	ug/l	50.0	ND	96.2	33-143			
Benzo(b,k)fluoranthene	**92.2**	10	ug/l	100	ND	92.2	24-149			
Benzo(g,h,i)perylene	**48.8**	20	ug/l	50.0	ND	97.6	5-219			
Benzo(a)pyrene	**43.4**	20	ug/l	50.0	ND	86.8	17-163			
Bis(2-chloroethoxy)methane	**42.5**	10	ug/l	50.0	ND	85.0	33-184			

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Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Matrix Spike Analyzed: 08/01/01 (P1G3025-MS1)					**Source: PKG0480-01**					
Bis(2-chloroethyl)ether	37.9	10	ug/l	50.0	ND	75.8	12-158			
Bis(2-chloroisopropyl)ether	38.1	10	ug/l	50.0	ND	76.2	36-166			
Bis(2-ethylhexyl)phthalate	122	20	ug/l	50.0	26	192	8-158			N2
4-Bromophenyl phenyl ether	47.5	20	ug/l	50.0	ND	95.0	53-127			
Butyl benzyl phthalate	49.0	10	ug/l	50.0	ND	98.0	5-152			
2-Chloronaphthalene	43.2	10	ug/l	50.0	ND	86.4	60-118			
4-Chloro-3-methylphenol	43.7	10	ug/l	50.0	ND	87.4	22-147			
2-Chlorophenol	38.7	10	ug/l	50.0	ND	77.4	23-134			
4-Chlorophenyl phenyl ether	44.7	10	ug/l	50.0	ND	89.4	25-152			
Chrysene	47.0	10	ug/l	50.0	ND	94.0	17-168			
Dibenz(a,h)anthracene	48.5	20	ug/l	50.0	ND	97.0	5-227			
Di-n-butyl phthalate	43.6	10	ug/l	50.0	ND	87.2	1-118			
1,3-Dichlorobenzene	32.5	10	ug/l	50.0	ND	65.0	5-172			
1,4-Dichlorobenzene	34.1	10	ug/l	50.0	ND	68.2	20-124			
1,2-Dichlorobenzene	35.3	10	ug/l	50.0	ND	70.6	32-129			
3,3-Dichlorobenzidine	55.5	20	ug/l	50.0	ND	111	5-262			
2,4-Dichlorophenol	45.1	10	ug/l	50.0	ND	90.2	39-135			
Diethyl phthalate	35.3	10	ug/l	50.0	ND	70.6	5-114			
2,4-Dimethylphenol	33.6	10	ug/l	50.0	ND	67.2	32-119			
Dimethyl phthalate	25.7	10	ug/l	50.0	ND	51.4	5-112			
4,6-Dinitro-2-methylphenol	47.1	10	ug/l	50.0	ND	94.2	5-181			
2,4-Dinitrophenol	43.6	30	ug/l	50.0	ND	87.2	5-191			
2,4-Dinitrotoluene	46.9	10	ug/l	50.0	ND	93.8	39-139			
2,6-Dinitrotoluene	47.3	10	ug/l	50.0	ND	94.6	50-158			
Di-n-octyl phthalate	44.9	20	ug/l	50.0	ND	89.8	4-146			
1,2-Diphenylhydrazine	38.6	10	ug/l	50.0	ND	77.2	0-200			
Fluoranthene	43.5	10	ug/l	50.0	ND	87.0	26-137			
Fluorene	45.4	10	ug/l	50.0	ND	90.8	59-121			
Hexachlorobenzene	46.0	10	ug/l	50.0	ND	92.0	5-152			
Hexachlorobutadiene	38.0	20	ug/l	50.0	ND	76.0	24-116			
Hexachlorocyclopentadiene	ND	30	ug/l	50.0	ND		0-200			M2,N2
Hexachloroethane	33.6	10	ug/l	50.0	ND	67.2	40-113			
Indeno(1,2,3-cd)pyrene	49.7	20	ug/l	50.0	ND	99.4	5-171			
Isophorone	46.3	10	ug/l	50.0	ND	92.6	21-196			
Naphthalene	36.2	10	ug/l	50.0	ND	72.4	21-133			
Nitrobenzene	41.2	10	ug/l	50.0	ND	82.4	35-180			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Matrix Spike Analyzed: 08/01/01 (P1G3025-MS1)					**Source: PKG0480-01**					
Nitrophenol	**44.4**	10	ug/l	50.0	ND	88.8	29-182			
4-Nitrophenol	**38.5**	10	ug/l	50.0	ND	77.0	0.01-132			
n-Nitrosodiphenylamine	**47.3**	30	ug/l	50.0	ND	94.6	0-200			
Nitroso-di-n-propylamine	**39.2**	10	ug/l	50.0	ND	78.4	0.01-230			
ntachlorophenol	**45.6**	20	ug/l	50.0	ND	91.2	14-176			
Phenanthrene	**47.6**	10	ug/l	50.0	ND	95.2	54-120			
Phenol	**36.3**	10	ug/l	50.0	ND	72.6	5-112			
rene	**47.2**	10	ug/l	50.0	ND	94.4	52-115			
1,2,4-Trichlorobenzene	**40.4**	10	ug/l	50.0	ND	80.8	44-142			
2,4,6-Trichlorophenol	**91.6**	10	ug/l	100	ND	91.6	37-144			
Nitrosodimethylamine	**35.9**	10	ug/l	50.0	ND	71.8	0-200			
rrogate: 2-Fluorophenol	*58.4*		*ug/l*	*100*		*58.4*	*20-120*			
Surrogate: Phenol-d6	*68.4*		*ug/l*	*100*		*68.4*	*15-115*			
Surrogate: 2,4,6-Tribromophenol	*82.3*		*ug/l*	*100*		*82.3*	*35-135*			
rrogate: Nitrobenzene-d5	*36.8*		*ug/l*	*50.0*		*73.6*	*25-120*			
rrogate: 2-Fluorobiphenyl	*41.4*		*ug/l*	*50.0*		*82.8*	*25-145*			
Surrogate: Terphenyl-d14	*41.4*		*ug/l*	*50.0*		*82.8*	*40-130*			
Matrix Spike Dup Analyzed: 08/03/01 (P1G3025-MSD1)					**Source: PKG0480-01**					
enaphthene	**45.7**	10	ug/l	50.0	ND	91.4	47-145	3.79	20	
Acenaphthylene	**39.5**	10	ug/l	50.0	ND	79.0	33-145	2.01	20	
Anthracene	**46.8**	10	ug/l	50.0	ND	93.6	27-133	1.29	20	
nzidine	ND	100	ug/l	50.0	ND		0-200		20	M2,N2
nz(a)anthracene	**47.5**	10	ug/l	50.0	ND	95.0	33-143	1.26	20	
Benzo(b,k)fluoranthene	**94.5**	10	ug/l	100	ND	94.5	24-149	2.46	20	
Benzo(g,h,i)perylene	**51.1**	20	ug/l	50.0	ND	102	5-219	4.60	20	
nzo(a)pyrene	**44.2**	20	ug/l	50.0	ND	88.4	17-163	1.83	20	
s(2-chloroethoxy)methane	**44.0**	10	ug/l	50.0	ND	88.0	33-184	3.47	20	
Bis(2-chloroethyl)ether	**37.4**	10	ug/l	50.0	ND	74.8	12-158	1.33	20	
s(2-chloroisopropyl)ether	**38.1**	10	ug/l	50.0	ND	76.2	36-166	0.00	20	
s(2-ethylhexyl)phthalate	**119**	20	ug/l	50.0	26	186	8-158	2.49	20	N2
4-Bromophenyl phenyl ether	**46.9**	20	ug/l	50.0	ND	93.8	53-127	1.27	20	
Butyl benzyl phthalate	**48.2**	10	ug/l	50.0	ND	96.4	5-152	1.65	20	
Chloronaphthalene	**43.6**	10	ug/l	50.0	ND	87.2	60-118	0.922	20	
Chloro-3-methylphenol	**45.2**	10	ug/l	50.0	ND	90.4	22-147	3.37	20	
2-Chlorophenol	**38.1**	10	ug/l	50.0	ND	76.2	23-134	1.56	20	
Chlorophenyl phenyl ether	**45.8**	10	ug/l	50.0	ND	91.6	25-152	2.43	20	

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Matrix Spike Dup Analyzed: 08/03/01 (P1G3025-MSD1)					**Source: PKG0480-01**					
Chrysene	**46.7**	10	ug/l	50.0	ND	93.4	17-168	0.640	20	
Dibenz(a,h)anthracene	**49.8**	20	ug/l	50.0	ND	99.6	5-227	2.64	20	
Di-n-butyl phthalate	**45.8**	10	ug/l	50.0	ND	91.6	1-118	4.92	20	
1,3-Dichlorobenzene	**32.5**	10	ug/l	50.0	ND	65.0	5-172	0.00	20	
1,4-Dichlorobenzene	**33.9**	10	ug/l	50.0	ND	67.8	20-124	0.588	20	
1,2-Dichlorobenzene	**34.3**	10	ug/l	50.0	ND	68.6	32-129	2.87	20	
3,3-Dichlorobenzidine	**55.0**	20	ug/l	50.0	ND	110	5-262	0.905	20	
2,4-Dichlorophenol	**46.5**	10	ug/l	50.0	ND	93.0	39-135	3.06	20	
Diethyl phthalate	**35.9**	10	ug/l	50.0	ND	71.8	5-114	1.69	20	
2,4-Dimethylphenol	**34.1**	10	ug/l	50.0	ND	68.2	32-119	1.48	20	
Dimethyl phthalate	**25.4**	10	ug/l	50.0	ND	50.8	5-112	1.17	20	
4,6-Dinitro-2-methylphenol	**45.4**	10	ug/l	50.0	ND	90.8	5-181	3.68	20	
2,4-Dinitrophenol	**44.9**	30	ug/l	50.0	ND	89.8	5-191	2.94	20	
2,4-Dinitrotoluene	**49.2**	10	ug/l	50.0	ND	98.4	39-139	4.79	20	
2,6-Dinitrotoluene	**48.4**	10	ug/l	50.0	ND	96.8	50-158	2.30	20	
Di-n-octyl phthalate	**46.2**	20	ug/l	50.0	ND	92.4	4-146	2.85	20	
1,2-Diphenylhydrazine	**38.6**	10	ug/l	50.0	ND	77.2	0-200	0.00	200	
Fluoranthene	**44.9**	10	ug/l	50.0	ND	89.8	26-137	3.17	20	
Fluorene	**46.5**	10	ug/l	50.0	ND	93.0	59-121	2.39	20	
Hexachlorobenzene	**45.6**	10	ug/l	50.0	ND	91.2	5-152	0.873	20	
Hexachlorobutadiene	**41.5**	20	ug/l	50.0	ND	83.0	24-116	8.81	20	
Hexachlorocyclopentadiene	ND	30	ug/l	50.0	ND		0-200		200	M2,N2
Hexachloroethane	**33.1**	10	ug/l	50.0	ND	66.2	40-113	1.50	20	
Indeno(1,2,3-cd)pyrene	**51.4**	20	ug/l	50.0	ND	103	5-171	3.36	20	
Isophorone	**47.8**	20	ug/l	50.0	ND	95.6	21-196	3.19	20	
Naphthalene	**40.5**	10	ug/l	50.0	ND	81.0	21-133	11.2	20	
Nitrobenzene	**42.5**	10	ug/l	50.0	ND	85.0	35-180	3.11	20	
2-Nitrophenol	**44.2**	10	ug/l	50.0	ND	88.4	29-182	0.451	20	
4-Nitrophenol	**36.4**	10	ug/l	50.0	ND	72.8	0.01-132	5.61	20	
n-Nitrosodiphenylamine	**46.4**	30	ug/l	50.0	ND	92.8	0-200	1.92	200	
n-Nitroso-di-n-propylamine	**37.6**	10	ug/l	50.0	ND	75.2	0.01-230	4.17	20	
Pentachlorophenol	**45.9**	20	ug/l	50.0	ND	91.8	14-176	0.656	20	
Phenanthrene	**47.6**	10	ug/l	50.0	ND	95.2	54-120	0.00	20	
Phenol	**36.6**	10	ug/l	50.0	ND	73.2	5-112	0.823	20	
Pyrene	**46.0**	10	ug/l	50.0	ND	92.0	52-115	2.58	20	
1,2,4-Trichlorobenzene	**42.1**	10	ug/l	50.0	ND	84.2	44-142	4.12	20	

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Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Matrix Spike Dup Analyzed: 08/03/01 (P1G3025-MSD1)					**Source: PKG0480-01**					
2,6-Trichlorophenol	**88.8**	10	ug/l	100	ND	88.8	37-144	3.10	20	
N-Nitrosodimethylamine	**34.2**	10	ug/l	50.0	ND	68.4	0-200	4.85	200	
Surrogate: 2-Fluorophenol	*64.4*		*ug/l*	*100*		*64.4*	*20-120*			
Surrogate: Phenol-d6	*68.6*		*ug/l*	*100*		*68.6*	*15-115*			
Surrogate: 2,4,6-Tribromophenol	*80.9*		*ug/l*	*100*		*80.9*	*35-135*			
Surrogate: Nitrobenzene-d5	*38.8*		*ug/l*	*50.0*		*77.6*	*25-120*			
Surrogate: 2-Fluorobiphenyl	*41.4*		*ug/l*	*50.0*		*82.8*	*25-145*			
Surrogate: Terphenyl-d14	*41.4*		*ug/l*	*50.0*		*82.8*	*40-130*			

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METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3119 Extracted: 07/31/01										
Blank Analyzed: 08/01/01 (P1G3119-BLK1)										
Calcium	ND	2.0	mg/l							
Magnesium	ND	0.50	mg/l							
Potassium	ND	1.0	mg/l							
Sodium	ND	5.0	mg/l							
Zinc	ND	0.050	mg/l							
LCS Analyzed: 08/01/01 (P1G3119-BS1)										
Calcium	**10.2**	2.0	mg/l	10.0		102	85-115			
Magnesium	**9.80**	0.50	mg/l	10.0		98.0	85-115			
Potassium	**10.8**	1.0	mg/l	10.0		108	85-115			
Sodium	**53.6**	5.0	mg/l	50.0		107	85-115			
Zinc	**1.02**	0.050	mg/l	1.00		102	85-115			
Matrix Spike Analyzed: 08/01/01 (P1G3119-MS1)					**Source: PKG0450-01**					
Calcium	**247**	2.0	mg/l	10.0	240	70.0	70-130			
Magnesium	**156**	0.50	mg/l	10.0	150	60.0	70-130			M2
Potassium	**31.1**	1.0	mg/l	10.0	21	101	85-115			
Sodium	**580**	10	mg/l	50.0	530	100	85-115			
Zinc	**1.02**	0.050	mg/l	1.00	ND	101	70-130			
Matrix Spike Dup Analyzed: 08/01/01 (P1G3119-MSD1)					**Source: PKG0450-01**					
Calcium	**248**	2.0	mg/l	10.0	240	80.0	70-130	0.404	20	
Magnesium	**154**	0.50	mg/l	10.0	150	40.0	70-130	1.29	20	M2
Potassium	**30.8**	1.0	mg/l	10.0	21	98.0	85-115	0.969	20	
Sodium	**578**	10	mg/l	50.0	530	96.0	85-115	0.345	20	
Zinc	**1.01**	0.050	mg/l	1.00	ND	100	70-130	0.985	20	

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Project Manager

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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0306 Extracted: 08/03/01										
Blank Analyzed: 08/05/01 (P1H0306-BLK1)										
Antimony	ND	0.0040	mg/l							
Beryllium	ND	0.00050	mg/l							
Cadmium	ND	0.00050	mg/l							
Chromium	ND	0.0040	mg/l							
Copper	ND	0.0040	mg/l							
Lead	ND	0.0020	mg/l							
Nickel	ND	0.0040	mg/l							
Selenium	ND	0.0040	mg/l							
Silver	ND	0.0050	mg/l							
Thallium	ND	0.0020	mg/l							
Blank Analyzed: 08/05/01 (P1H0306-BLK2)										
Antimony	ND	0.0040	mg/l							
Beryllium	ND	0.00050	mg/l							
Cadmium	ND	0.00050	mg/l							
Chromium	ND	0.0040	mg/l							
Copper	ND	0.0040	mg/l							
Lead	ND	0.0020	mg/l							
Nickel	ND	0.0040	mg/l							
Selenium	ND	0.0040	mg/l							
Silver	ND	0.0050	mg/l							
Thallium	ND	0.0020	mg/l							
LCS Analyzed: 08/05/01 (P1H0306-BS1)										
Antimony	**0.0392**	0.0080	mg/l	0.0400		98.0	85-115			
Beryllium	**0.00221**	0.0010	mg/l	0.00200		110	85-115			
Cadmium	**0.00181**	0.0010	mg/l	0.00200		90.5	85-115			
Chromium	**0.0424**	0.0080	mg/l	0.0400		106	85-115			
Copper	**0.0439**	0.0080	mg/l	0.0400		110	85-115			
Lead	**0.0432**	0.0040	mg/l	0.0400		108	85-115			
Nickel	**0.0397**	0.0080	mg/l	0.0400		99.3	85-115			
Selenium	**0.0409**	0.0080	mg/l	0.0400		102	85-115			
Silver	**0.0203**	0.010	mg/l	0.0200		102	85-115			
Thallium	**0.0177**	0.0040	mg/l	0.0200		88.5	85-115			

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0306 Extracted: 08/03/01										
Matrix Spike Analyzed: 08/05/01 (P1H0306-MS1)					**Source: PKG0540-05**					
Antimony	**0.0413**	0.0080	mg/l	0.0400	ND	103	70-130			
Beryllium	**0.00211**	0.0010	mg/l	0.00200	ND	106	70-130			
Cadmium	**0.00216**	0.0010	mg/l	0.00200	ND	92.0	70-130			
Chromium	**0.0458**	0.0080	mg/l	0.0400	ND	110	70-130			
Copper	**0.0454**	0.0080	mg/l	0.0400	ND	94.8	70-130			
Lead	**0.0442**	0.0040	mg/l	0.0400	ND	104	70-130			
Nickel	**0.0370**	0.0080	mg/l	0.0400	ND	89.2	70-130			
Selenium	**0.0325**	0.0080	mg/l	0.0400	ND	81.2	70-130			
Silver	**0.0203**	0.010	mg/l	0.0200	ND	102	70-130			
Thallium	**0.0200**	0.0040	mg/l	0.0200	ND	100	70-130			
Matrix Spike Dup Analyzed: 08/05/01 (P1H0306-MSD1)					**Source: PKG0540-05**					
Antimony	**0.0401**	0.0080	mg/l	0.0400	ND	100	70-130	2.95	20	
Beryllium	**0.00212**	0.0010	mg/l	0.00200	ND	106	70-130	0.473	20	
Cadmium	**0.00195**	0.0010	mg/l	0.00200	ND	81.5	70-130	10.2	20	
Chromium	**0.0455**	0.0080	mg/l	0.0400	ND	109	70-130	0.657	20	
Copper	**0.0542**	0.0080	mg/l	0.0400	ND	117	70-130	17.7	20	
Lead	**0.0430**	0.0040	mg/l	0.0400	ND	101	70-130	2.75	20	
Nickel	**0.0381**	0.0080	mg/l	0.0400	ND	92.0	70-130	2.93	20	
Selenium	**0.0329**	0.0080	mg/l	0.0400	ND	82.3	70-130	1.22	20	
Silver	**0.0204**	0.010	mg/l	0.0200	ND	102	70-130	0.491	20	
Thallium	**0.0200**	0.0040	mg/l	0.0200	ND	100	70-130	0.00	20	
Batch: P1H0327 Extracted: 08/03/01										
Blank Analyzed: 08/03/01 (P1H0327-BLK1)										
Mercury	ND	0.00020	mg/l							

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METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0327 Extracted: 08/03/01										
LCS Analyzed: 08/03/01 (P1H0327-BS1)										
Mercury	**0.00490**	0.00020	mg/l	0.00500		98.0	85-115			
Matrix Spike Analyzed: 08/03/01 (P1H0327-MS1)					**Source: PKG0493-05**					
Mercury	**0.00472**	0.00020	mg/l	0.00500	ND	94.4	85-115			
Matrix Spike Dup Analyzed: 08/03/01 (P1H0327-MSD1)					**Source: PKG0493-05**					
Mercury	**0.00467**	0.00020	mg/l	0.00500	ND	93.4	85-115	1.06	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0210 Extracted: 08/02/01										
Blank Analyzed: 08/04/01 (P1H0210-BLK1)										
Antimony, Dissolved	ND	0.0040	mg/l							
Cadmium, Dissolved	ND	0.00050	mg/l							
Chromium, Dissolved	ND	0.0040	mg/l							
Lead, Dissolved	ND	0.0020	mg/l							
Nickel, Dissolved	ND	0.0040	mg/l							
Selenium, Dissolved	ND	0.0040	mg/l							
Thallium, Dissolved	ND	0.0020	mg/l							
Blank Analyzed: 08/04/01 (P1H0210-BLK2)										
Antimony, Dissolved	ND	0.0040	mg/l							
Cadmium, Dissolved	ND	0.00050	mg/l							
Chromium, Dissolved	ND	0.0040	mg/l							
Lead, Dissolved	ND	0.0020	mg/l							
Nickel, Dissolved	ND	0.0040	mg/l							
Selenium, Dissolved	ND	0.0040	mg/l							
Thallium, Dissolved	ND	0.0020	mg/l							
LCS Analyzed: 08/04/01 (P1H0210-BS1)										
Antimony, Dissolved	**0.0209**	0.0040	mg/l	0.0200		104	85-115			
Cadmium, Dissolved	**0.00102**	0.00050	mg/l	0.00100		102	85-115			
Chromium, Dissolved	**0.0209**	0.0040	mg/l	0.0200		104	85-115			
Lead, Dissolved	**0.0201**	0.0020	mg/l	0.0200		100	85-115			
Nickel, Dissolved	**0.0208**	0.0040	mg/l	0.0200		104	85-115			
Selenium, Dissolved	**0.0200**	0.0040	mg/l	0.0200		100	85-115			
Thallium, Dissolved	**0.0102**	0.0020	mg/l	0.0100		102	85-115			
Matrix Spike Analyzed: 08/04/01 (P1H0210-MS1)					**Source: PKG0480-02**					
Antimony, Dissolved	**0.0200**	0.0040	mg/l	0.0200	ND	100	70-130			
Cadmium, Dissolved	**0.00103**	0.00050	mg/l	0.00100	ND	103	70-130			
Chromium, Dissolved	**0.0194**	0.0040	mg/l	0.0200	ND	97.0	70-130			
Lead, Dissolved	**0.0201**	0.0020	mg/l	0.0200	ND	100	70-130			
Nickel, Dissolved	**0.0174**	0.0040	mg/l	0.0200	ND	87.0	70-130			
Selenium, Dissolved	**0.0187**	0.0040	mg/l	0.0200	ND	93.5	70-130			
Thallium, Dissolved	**0.00990**	0.0020	mg/l	0.0100	ND	99.0	70-130			

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0210 Extracted: 08/02/01										
Matrix Spike Dup Analyzed: 08/04/01 (P1H0210-MSD1)					**Source: PKG0480-02**					
Antimony, Dissolved	**0.0198**	0.0040	mg/l	0.0200	ND	99.0	70-130	1.01	20	
Cadmium, Dissolved	**0.000987**	0.00050	mg/l	0.00100	ND	98.7	70-130	4.26	20	
Chromium, Dissolved	**0.0203**	0.0040	mg/l	0.0200	ND	102	70-130	4.53	20	
Lead, Dissolved	**0.0204**	0.0020	mg/l	0.0200	ND	102	70-130	1.48	20	
Nickel, Dissolved	**0.0189**	0.0040	mg/l	0.0200	ND	94.5	70-130	8.26	20	
Selenium, Dissolved	**0.0194**	0.0040	mg/l	0.0200	ND	97.0	70-130	3.67	20	
Thallium, Dissolved	**0.0101**	0.0020	mg/l	0.0100	ND	101	70-130	2.00	20	
Batch: P1H0217 Extracted: 08/02/01										
Blank Analyzed: 08/06/01 (P1H0217-BLK1)										
Zinc, Dissolved	ND	0.050	mg/l							
Blank Analyzed: 08/06/01 (P1H0217-BLK2)										
Zinc, Dissolved	ND	0.050	mg/l							B4
LCS Analyzed: 08/06/01 (P1H0217-BS1)										
Zinc, Dissolved	**0.998**	0.050	mg/l	1.00		99.8	85-115			
Matrix Spike Analyzed: 08/06/01 (P1H0217-MS1)					**Source: PKG0539-07**					
Zinc, Dissolved	**1.15**	0.050	mg/l	1.00	ND	112	70-130			
Matrix Spike Dup Analyzed: 08/06/01 (P1H0217-MSD1)					**Source: PKG0539-07**					
Zinc, Dissolved	**1.15**	0.050	mg/l	1.00	ND	112	70-130	0.00	20	
Batch: P1H0621 Extracted: 08/06/01										
Blank Analyzed: 08/06/01 (P1H0621-BLK1)										
Mercury, Dissolved	ND	0.00020	mg/l							

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0621 Extracted: 08/06/01										
Blank Analyzed: 08/06/01 (P1H0621-BLK2)										
Mercury, Dissolved	ND	0.00020	mg/l							
LCS Analyzed: 08/06/01 (P1H0621-BS1)										
Mercury, Dissolved	**0.00505**	0.00020	mg/l	0.00500		101	85-115			
Matrix Spike Analyzed: 08/06/01 (P1H0621-MS1)					**Source: PKG0538-07**					
Mercury, Dissolved	**0.00451**	0.00020	mg/l	0.00500	ND	90.2	85-115			
Matrix Spike Dup Analyzed: 08/06/01 (P1H0621-MSD1)					**Source: PKG0538-07**					
Mercury, Dissolved	**0.00446**	0.00020	mg/l	0.00500	ND	89.2	85-115	1.11	20	

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3015 Extracted: 07/30/01										
Blank Analyzed: 07/30/01 (P1G3015-BLK1)										
Chloride	ND	0.50	mg/l							
Fluoride	ND	0.10	mg/l							
Nitrate-N	ND	0.10	mg/l							
Nitrate/Nitrite-N	ND	0.10	mg/l							
Nitrite-N	ND	0.10	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 07/30/01 (P1G3015-BS1)										
Chloride	**4.74**	0.50	mg/l	5.00		94.8	90-110			
Fluoride	**2.32**	0.10	mg/l	2.50		92.8	90-110			
Nitrate-N	**2.37**	0.10	mg/l	2.50		94.8	90-110			
Nitrite-N	**2.44**	0.10	mg/l	2.50		97.6	90-110			
Sulfate	**4.70**	0.50	mg/l	5.00		94.0	90-110			
LCS Dup Analyzed: 07/30/01 (P1G3015-BSD1)										
Chloride	**4.70**	0.50	mg/l	5.00		94.0	90-110	0.847	20	
Fluoride	**2.31**	0.10	mg/l	2.50		92.4	90-110	0.432	20	
Nitrate-N	**2.34**	0.10	mg/l	2.50		93.6	90-110	1.27	20	
Nitrite-N	**2.43**	0.10	mg/l	2.50		97.2	90-110	0.411	20	
Sulfate	**4.64**	0.50	mg/l	5.00		92.8	90-110	1.28	20	
Matrix Spike Analyzed: 07/30/01 (P1G3015-MS1)					**Source: PKG0500-02**					
Chloride	**10.3**	0.50	mg/l	5.00	5.3	100	80-120			
Fluoride	**2.60**	0.10	mg/l	2.50	0.31	91.6	80-120			
Nitrate-N	**3.50**	0.10	mg/l	2.50	1.1	96.0	80-120			
Nitrite-N	**2.37**	0.10	mg/l	2.50	ND	94.8	80-120			
Sulfate	**20.6**	0.50	mg/l	5.00	16	92.0	80-120			

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3015 Extracted: 07/30/01										
Matrix Spike Dup Analyzed: 07/30/01 (P1G3015-MSD1)					**Source: PKG0500-02**					
Chloride	**10.4**	0.50	mg/l	5.00	5.3	102	80-120	0.966	20	
Fluoride	**2.68**	0.10	mg/l	2.50	0.31	94.8	80-120	3.03	20	
Nitrate-N	**3.53**	0.10	mg/l	2.50	1.1	97.2	80-120	0.853	20	
Nitrite-N	**2.46**	0.10	mg/l	2.50	ND	98.4	80-120	3.73	20	
Sulfate	**20.7**	0.50	mg/l	5.00	16	94.0	80-120	0.484	20	
Batch: P1G3110 Extracted: 07/31/01										
Duplicate Analyzed: 07/31/01 (P1G3110-DUP1)					**Source: PKG0500-03**					
Specific Conductance	**386**	2.0	umhos/cm		390			1.03	10	
Reference Analyzed: 07/31/01 (P1G3110-SRM1)										
Specific Conductance	**1410**	2.0	umhos/cm	1410		100	90-110			
Batch: P1G3117 Extracted: 07/31/01										
Blank Analyzed: 07/31/01 (P1G3117-BLK1)										
Orthophosphate	ND	0.050	mg/l							
LCS Analyzed: 07/31/01 (P1G3117-BS1)										
Orthophosphate	**0.496**	0.050	mg/l				80-120			
Matrix Spike Analyzed: 07/31/01 (P1G3117-MS1)					**Source: PKG0499-01**					
Orthophosphate	**3.50**	0.25	mg/l	2.50	0.78	109	75-125			
Matrix Spike Dup Analyzed: 07/31/01 (P1G3117-MSD1)					**Source: PKG0499-01**					
Orthophosphate	**3.52**	0.25	mg/l	2.50	0.78	110	75-125	0.570	20	

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0209 Extracted: 08/02/01										
Blank Analyzed: 08/02/01 (P1H0209-BLK1)										
Total Dissolved Solids	ND	20	mg/l							
LCS Analyzed: 08/02/01 (P1H0209-BS1)										
Total Dissolved Solids	**408**	20	mg/l	400		102	80-115			
Duplicate Analyzed: 08/02/01 (P1H0209-DUP1)					**Source: PKG0465-05**					
Total Dissolved Solids	**626**	20	mg/l		610			2.59	5	
Duplicate Analyzed: 08/02/01 (P1H0209-DUP2)					**Source: PKG0500-04**					
Total Dissolved Solids	**300**	20	mg/l		300			0.00	5	
Batch: P1H0211 Extracted: 08/02/01										
Blank Analyzed: 08/02/01 (P1H0211-BLK1)										
Ammonia-N	ND	0.050	mg/l							
LCS Analyzed: 08/02/01 (P1H0211-BS1)										
Ammonia-N	**0.490**	0.050	mg/l	0.500		98.0	85-115			
Matrix Spike Analyzed: 08/02/01 (P1H0211-MS1)					**Source: PKG0480-01**					
Ammonia-N	**0.472**	0.050	mg/l	0.500	0.062	82.0	70-130			
Matrix Spike Dup Analyzed: 08/02/01 (P1H0211-MSD1)					**Source: PKG0480-01**					
Ammonia-N	**0.570**	0.050	mg/l	0.500	0.062	102	70-130	18.8	20	
Batch: P1H0233 Extracted: 08/02/01										
Blank Analyzed: 08/02/01 (P1H0233-BLK1)										
Total Suspended Solids	ND	10	mg/l							

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0501

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0233 Extracted: 08/02/01										
Duplicate Analyzed: 08/02/01 (P1H0233-DUP1)					**Source: PKG0480-01**					
Total Suspended Solids	ND	10	mg/l		ND				5	
Duplicate Analyzed: 08/02/01 (P1H0233-DUP2)					**Source: PKG0519-01**					
Total Suspended Solids	**15.0**	10	mg/l		16			6.45	5	R9
Reference Analyzed: 08/02/01 (P1H0233-SRM1)										
Total Suspended Solids	**61.0**	10	mg/l	64.7		94.3	85-107			
Batch: P1H0319 Extracted: 08/03/01										
Blank Analyzed: 08/03/01 (P1H0319-BLK1)										
Phosphorous, Dissolved	ND	0.050	mg/l							
Phosphorus	ND	0.050	mg/l							
LCS Analyzed: 08/03/01 (P1H0319-BS1)										
Phosphorous, Dissolved	**0.524**	0.050	mg/l	0.500		105	80-120			
Phosphorus	**0.524**	0.050	mg/l	0.500		105	80-120			
Matrix Spike Analyzed: 08/03/01 (P1H0319-MS1)					**Source: PKG0480-01**					
Phosphorous, Dissolved	**0.537**	0.050	mg/l	0.500	ND	102	80-120			
Phosphorus	**0.537**	0.050	mg/l	0.500	ND	107	75-125			
Matrix Spike Dup Analyzed: 08/03/01 (P1H0319-MSD1)					**Source: PKG0480-01**					
Phosphorous, Dissolved	**0.559**	0.050	mg/l	0.500	ND	107	80-120	4.01	20	
Phosphorus	**0.559**	0.050	mg/l	0.500	ND	112	75-125	4.01	20	

Linda Eshelman
Project Manager

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Report Number: PKG0501

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0719 Extracted: 08/07/01										
Blank Analyzed: 08/08/01 (P1H0719-BLK1)										
Total Cyanide	ND	0.020	mg/l							
LCS Analyzed: 08/08/01 (P1H0719-BS1)										
Total Cyanide	0.0988	0.020	mg/l	0.100		98.8	90-110			
Matrix Spike Analyzed: 08/08/01 (P1H0719-MS1)					Source: PKG0501-01					
Total Cyanide	0.105	0.020	mg/l	0.100	ND	105	70-130			
Matrix Spike Dup Analyzed: 08/08/01 (P1H0719-MSD1)					Source: PKG0501-01					
Total Cyanide	0.0819	0.020	mg/l	0.100	ND	81.9	70-130	24.7	20	R1
Batch: P1H0727 Extracted: 08/07/01										
Blank Analyzed: 08/08/01 (P1H0727-BLK1)										
Chemical Oxygen Demand	ND	20	mg/l							
LCS Analyzed: 08/08/01 (P1H0727-BS1)										
Chemical Oxygen Demand	208	20	mg/l	200		104	90-110			
Matrix Spike Analyzed: 08/08/01 (P1H0727-MS1)					Source: PKG0501-01					
Chemical Oxygen Demand	356	25	mg/l	250	91	106	65-130			
Matrix Spike Dup Analyzed: 08/08/01 (P1H0727-MSD1)					Source: PKG0501-01					
Chemical Oxygen Demand	356	25	mg/l	250	91	106	65-130	0.00	20	
Batch: P1H0805 Extracted: 08/08/01										
Duplicate Analyzed: 08/08/01 (P1H0805-DUP1)					Source: PKG0501-01					
Alkalinity as CaCO3	24.0	5.0	mg/l		24			0.00	20	

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Report Number: PKG0501

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0805 Extracted: 08/08/01										
Duplicate Analyzed: 08/08/01 (P1H0805-DUP2)					**Source: PKG0539-04**					
Alkalinity as CaCO3	**226**	5.0	mg/l		230			1.75	20	
Reference Analyzed: 08/08/01 (P1H0805-SRM1)										
Alkalinity as CaCO3	**24.0**	5.0	mg/l	23.3		103	89-111			
Batch: P1H1316 Extracted: 08/13/01										
Blank Analyzed: 08/13/01 (P1H1316-BLK1)										
Nitrate/Nitrite-N	ND	0.050	mg/l							
LCS Analyzed: 08/13/01 (P1H1316-BS1)										
Nitrate/Nitrite-N	**0.985**	0.050	mg/l	1.00		98.5	90-110			
Matrix Spike Analyzed: 08/13/01 (P1H1316-MS1)					**Source: PKG0385-01**					
Nitrate/Nitrite-N	**15.2**	0.50	mg/l	10.0	5.0	102	80-125			
Matrix Spike Dup Analyzed: 08/13/01 (P1H1316-MSD1)					**Source: PKG0385-01**					
Nitrate/Nitrite-N	**14.8**	0.50	mg/l	10.0	5.0	98.0	80-125	2.67	20	

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C1H0607 Extracted: 08/06/01										
Blank Analyzed: 08/06/01 (C1H0607-BLK1)										
Total Kjeldahl Nitrogen	ND	0.10	mg/l							
LCS Analyzed: 08/06/01 (C1H0607-BS1)										
Total Kjeldahl Nitrogen	**4.28**	0.10	mg/l	5.00		85.6	80-115			Q8
LCS Dup Analyzed: 08/06/01 (C1H0607-BSD1)										
Total Kjeldahl Nitrogen	**4.34**	0.10	mg/l	5.00		86.8	80-115	1.39	15	

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: I1H0125 Extracted: 08/01/01										
Blank Analyzed: 08/02/01 (I1H0125-BLK1)										
Aldrin	ND	0.10	ug/l							
alpha-BHC	ND	0.10	ug/l							
beta-BHC	ND	0.10	ug/l							
delta-BHC	ND	0.20	ug/l							
gamma-BHC (Lindane)	ND	0.10	ug/l							
Chlordane	ND	1.0	ug/l							
4,4'-DDD	ND	0.10	ug/l							
4,4'-DDE	ND	0.10	ug/l							
4,4'-DDT	ND	0.10	ug/l							
Dieldrin	ND	0.10	ug/l							
Endosulfan I	ND	0.10	ug/l							
Endosulfan II	ND	0.10	ug/l							
Endosulfan sulfate	ND	0.20	ug/l							
Endrin	ND	0.10	ug/l							
Endrin aldehyde	ND	0.10	ug/l							
Endrin ketone	ND	0.10	ug/l							
Heptachlor	ND	0.10	ug/l							
Heptachlor epoxide	ND	0.10	ug/l							
Methoxychlor	ND	0.10	ug/l							
Toxaphene	ND	5.0	ug/l							
Surrogate: Tetrachloro-m-xylene	*0.269*		*ug/l*	*0.500*		*53.8*	*30-120*			
Surrogate: Decachlorobiphenyl	*0.439*		*ug/l*	*0.500*		*87.8*	*30-120*			
LCS Analyzed: 08/02/01 (I1H0125-BS1)										
Aldrin	**0.401**	0.10	ug/l	0.500		80.2	42-115			
alpha-BHC	**0.375**	0.10	ug/l	0.500		75.0	37-115			
beta-BHC	**0.440**	0.10	ug/l	0.500		88.0	45-115			
delta-BHC	**0.458**	0.20	ug/l	0.500		91.6	45-130			
gamma-BHC (Lindane)	**0.398**	0.10	ug/l	0.500		79.6	40-115			
4,4'-DDD	**0.482**	0.10	ug/l	0.500		96.4	55-120			
4,4'-DDE	**0.478**	0.10	ug/l	0.500		95.6	50-115			
4,4'-DDT	**0.517**	0.10	ug/l	0.500		103	55-115			
Dieldrin	**0.460**	0.10	ug/l	0.500		92.0	50-115			
Endosulfan I	**0.474**	0.10	ug/l	0.500		94.8	45-115			
Endosulfan II	**0.483**	0.10	ug/l	0.500		96.6	50-115			
Endosulfan sulfate	**0.513**	0.20	ug/l	0.500		103	65-120			

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: I1H0125 Extracted: 08/01/01										
LCS Analyzed: 08/02/01 (I1H0125-BS1)										
Aldrin	**0.469**	0.10	ug/l	0.500		93.8	45-115			
Endrin aldehyde	**0.543**	0.10	ug/l	0.500		109	45-115			
Endrin ketone	**0.516**	0.10	ug/l	0.500		103	55-140			
Heptachlor	**0.405**	0.10	ug/l	0.500		81.0	35-115			
Heptachlor epoxide	**0.463**	0.10	ug/l	0.500		92.6	40-115			
Methoxychlor	**0.526**	0.10	ug/l	0.500		105	55-120			
Surrogate: Tetrachloro-m-xylene	*0.304*		*ug/l*	*0.500*		*60.8*	*30-120*			
Surrogate: Decachlorobiphenyl	*0.502*		*ug/l*	*0.500*		*100*	*30-120*			
LCS Dup Analyzed: 08/02/01 (I1H0125-BSD1)										
Aldrin	**0.415**	0.10	ug/l	0.500		83.0	42-115	3.43	20	M-NR1a
alpha-BHC	**0.412**	0.10	ug/l	0.500		82.4	37-115	9.40	20	M-NR1a
beta-BHC	**0.457**	0.10	ug/l	0.500		91.4	45-115	3.79	20	M-NR1a
delta-BHC	**0.475**	0.20	ug/l	0.500		95.0	45-130	3.64	20	M-NR1a
gamma-BHC (Lindane)	**0.422**	0.10	ug/l	0.500		84.4	40-115	5.85	20	M-NR1a
4,4'-DDD	**0.478**	0.10	ug/l	0.500		95.6	55-120	0.833	20	M-NR1a
4,4'-DDE	**0.478**	0.10	ug/l	0.500		95.6	50-115	0.00	20	M-NR1a
4,4'-DDT	**0.518**	0.10	ug/l	0.500		104	55-115	0.193	20	M-NR1a
Dieldrin	**0.461**	0.10	ug/l	0.500		92.2	50-115	0.217	20	M-NR1a
Endosulfan I	**0.478**	0.10	ug/l	0.500		95.6	45-115	0.840	20	M-NR1a
Endosulfan II	**0.480**	0.10	ug/l	0.500		96.0	50-115	0.623	20	M-NR1a
Endosulfan sulfate	**0.522**	0.20	ug/l	0.500		104	65-120	1.74	20	M-NR1a
Endrin	**0.471**	0.10	ug/l	0.500		94.2	45-115	0.426	20	M-NR1a
Endrin aldehyde	**0.573**	0.10	ug/l	0.500		115	45-115	5.38	20	M-NR1a
Endrin ketone	**0.516**	0.10	ug/l	0.500		103	55-140	0.00	20	M-NR1a
Heptachlor	**0.427**	0.10	ug/l	0.500		85.4	35-115	5.29	20	M-NR1a
Heptachlor epoxide	**0.470**	0.10	ug/l	0.500		94.0	40-115	1.50	20	M-NR1a
Methoxychlor	**0.528**	0.10	ug/l	0.500		106	55-120	0.380	20	M-NR1a
Surrogate: Tetrachloro-m-xylene	*0.361*		*ug/l*	*0.500*		*72.2*	*30-120*			*M-NR1a*
Surrogate: Decachlorobiphenyl	*0.492*		*ug/l*	*0.500*		*98.4*	*30-120*			*M-NR1a*

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Report Number: PKG0501

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METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: I1H0125 Extracted: 08/01/01										
Blank Analyzed: 08/03/01 (I1H0125-BLK1)										
Aroclor 1016	ND	1.0	ug/l							
Aroclor 1221	ND	1.0	ug/l							
Aroclor 1232	ND	1.0	ug/l							
Aroclor 1242	ND	1.0	ug/l							
Aroclor 1248	ND	1.0	ug/l							
Aroclor 1254	ND	1.0	ug/l							
Aroclor 1260	ND	1.0	ug/l							
Surrogate: Decachlorobiphenyl	*0.432*		*ug/l*	*0.500*		*86.4*	*30-120*			
LCS Analyzed: 08/03/01 (I1H0125-BS2)										
Aroclor 1016	**3.14**	1.0	ug/l	4.00		78.5	45-115			
Aroclor 1260	**3.87**	1.0	ug/l	4.00		96.8	55-115			
Surrogate: Decachlorobiphenyl	*0.475*		*ug/l*	*0.500*		*95.0*	*30-120*			
LCS Dup Analyzed: 08/03/01 (I1H0125-BSD2)										
Aroclor 1016	**3.09**	1.0	ug/l	4.00		77.2	45-115	1.61	25	M-NR1a
Aroclor 1260	**3.76**	1.0	ug/l	4.00		94.0	55-115	2.88	20	M-NR1a
Surrogate: Decachlorobiphenyl	*0.457*		*ug/l*	*0.500*		*91.4*	*30-120*			*M-NR1a*

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: I1G3166 Extracted: 07/31/01										
Blank Analyzed: 07/31/01 (I1G3166-BLK1)										
Total Organic Carbon	ND	1.0	mg/l							
LCS Analyzed: 07/31/01 (I1G3166-BS1)										
Total Organic Carbon	**10.3**	1.0	mg/l	10.0		103	90-110			
Matrix Spike Analyzed: 07/31/01 (I1G3166-MS1)					**Source: IKG0975-02**					
Total Organic Carbon	**10.4**	1.0	mg/l	5.00	6.0	88.0	80-120			
Matrix Spike Dup Analyzed: 07/31/01 (I1G3166-MSD1)					**Source: IKG0975-02**					
Total Organic Carbon	**10.9**	1.0	mg/l	5.00	6.0	98.0	80-120	4.69	20	

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Maricopa County -Flood Control District 2801 West Durango Street Phoenix, AZ 85009 Attention: Julie Cox	Client Project ID: Glendale-NPDES STORMWATER Report Number: PKG0501	Sampled: 07/29/01 Received: 07/30/01

METHOD BLANK/QC DATA

DATA QUALIFIERS AND DEFINITIONS

B4	Target analyte detected in blank at/above method acceptance criteria.
D1	Sample required dilution due to matrix interference. See case narrative.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
N2	See corrective action report.
Q8	Insufficient sample received to meet method QC requirements. QC requirements satisfy ADEQ policies 0154 and 0155.
R1	RPD exceeded the method control limit. See case narrative.
R9	Sample RPD exceeded the laboratory control limit.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not reported.
RPD	Relative Percent Difference

Linda Eshelman
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9589
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CORRECTIVE ACTION REPORT

Department:	GC/MS	Method:	625
Date:	08/06/2001	Matrix:	Water
Batch:	P1G3025		
Sample:	PKG0480-01, PKG0480-03, PKG0484-03, PKG0499-01, PKG0501-01, PKG0509-01 & PKG0515-01 – PKG0515-03		

Identification and Definition of Problem:

The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recovered low and outside of acceptance limits for Benzidine and Hexachlorocyclopentadiene. The Laboratory Control Sample appears to be outside of acceptance limits, but is in fact within acceptance criteria which are detect to 200%.

Determination of the Cause of the Problem:

The cause of low recoveries could not be determined, but may have been due to breakdown of the compounds during the extraction process as these compounds are known to be heat and light sensitive.

Corrective Action:

The Laboratory Control Sample (LCS) was within acceptance limits for Benzidine and Hexachlorocyclopentadiene, thus validating the batch. The LCS has been flagged "N2" to indicate that the recoveries appear to be outside of acceptance limits, but in fact are within acceptance limits. The MS and MSD have been flagged "M2" and "N2" to indicate that the recoveries were outside of acceptance limits.

Elizabeth C. Wueschner: Elizabeth C. Wueschner Date: 08/13/2001
Quality Assurance Manager

Del Mar Analytical

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CORRECTIVE ACTION REPORT

Department:	GC/MS	Method:	625
Date:	08/06/2001	Matrix:	Water
Batch:	P1G3025		
Sample:	PKG0480-01, PKG0480-03, PKG0484-03, PKG0499-01, PKG0501-01, PKG0502-01, PKG0504-01, PKG0509-01, PKG0510-01, PKG0515-01 – PKG0515-03 & PKG0452-01		

Identification and Definition of Problem:

The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recovered high (192% and 186% respectively) and outside of the 8-158% acceptance limits for Bis-2-ethylhexylphthalate.

Determination of the Cause of the Problem:

The cause of high recoveries could not be determined, but may have been due to matrix interference.

Corrective Action:

The Laboratory Control Sample (LCS) was within acceptance limits for Bis-2-ethylhexylphthalate. Thus validating the batch. All of the associated samples, with the exception of PKG0480-01, were non-detect for Bis-2-ethylhexylphthalate. The MS, MSD and the source sample have been flagged "N2" to indicate the high recoveries.

Elizabeth C. Wueschner: Elizabeth C. Wueschner Date: 08/23/2001
Quality Assurance Manager

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
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CORRECTIVE ACTION REPORT

Department: Wet Chemistry
Date: 08/08/2001
Batch: P1H0716
Methods: SM4500-CN,C-E
Matrix: Water
Samples Affected: PKG0509-01, PKG0519-01, PKG0514-01 – PKG0514-02, PKG0501-01 & PKG0502-02

Identification and Definition of Problem:

The Relative Percent Difference (RPD) between the Matrix Spike (MS) and the Matrix Spike Duplicate (MSD) was high (24.7%) and outside of the 20% acceptance limits.

Determination of the Cause of the Problem:

The cause of the high RPD between the MS and the MSD could not be determined.

Corrective Action:

The individual recoveries for the MS and the MSD were within acceptance limits. The Laboratory Control Sample also recovered within acceptance limits. The MSD has been flagged "R1" to indicate that the RPD was outside of acceptance limits.

Elizabeth C. Wueschner: Elizabeth C Wueschner Date: 08/23/2001
Quality Assurance Manager

Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CORRECTIVE ACTION REPORT

Department:	GC/MS	Method:	625
Date:	08/06/2001	Matrix:	Water
Batch:	P1G3025		
Sample:	PKG0480-01, PKG0480-03, PKG0484-03, PKG0499-01, PKG0501-01, PKG0502-01, PKG0504-01, PKG0509-01, PKG0510-01, PKG0515-01 – PKG0515-03 & PKG0452-01		

Identification and Definition of Problem:

The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recovered high (192% and 186% respectively) and outside of the 8-158% acceptance limits for Bis-2-ethylhexylphthalate.

Determination of the Cause of the Problem:

The cause of high recoveries could not be determined, but may have been due to matrix interference.

Corrective Action:

The Laboratory Control Sample (LCS) was within acceptance limits for Bis-2-ethylhexylphthalate. Thus validating the batch. All of the associated samples, with the exception of PKG0480-01, were non-detect for Bis-2-ethylhexylphthalate. The MS, MSD and the source sample have been flagged "N2" to indicate the high recoveries.

Elizabeth C. Wueschner: Elizabeth C. Wueschner Date: 08/23/2001
Quality Assurance Manager

Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CORRECTIVE ACTION REPORT

Department: Wet Chemistry
Methods: SM4500-CN,C-E
Date: 08/08/2001
Matrix: Water
Batch: P1H0716
Samples Affected: PKG0509-01, PKG0519-01, PKG0514-01 – PKG0514-02, PKG0501-01 & PKG0502-02

Identification and Definition of Problem:

The Relative Percent Difference (RPD) between the Matrix Spike (MS) and the Matrix Spike Duplicate (MSD) was high (24.7%) and outside of the 20% acceptance limits.

Determination of the Cause of the Problem:

The cause of the high RPD between the MS and the MSD could not be determined.

Corrective Action:

The individual recoveries for the MS and the MSD were within acceptance limits. The Laboratory Control Sample also recovered within acceptance limits. The MSD has been flagged "R1" to indicate that the RPD was outside of acceptance limits.

Elizabeth C. Wueschner: Elizabeth C Wueschner Date: 08/23/2001
Quality Assurance Manager

NEL LABORATORIES
Reno • Las Vegas • Boise
Phoenix • Sacramento

Reno Division
4750 Longley Lane, Suite 106 • Reno, Nevada 89502
775-348-2522 • Fax: 775-348-2546
1-800-368-5221

CLIENT: Del Mar Analytical
9830 S. 51st. St. Ste. B-120
Phoenix, AZ 85044
ATTN: Linda Eshelman

PROJECT NAME: PKG0501-MCFC
PROJECT #: NA

NEL ORDER ID: P0107070

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 7/31/01.

Samples were analyzed as received.

Where applicable we have included the following quality control data:

Method blank - used to demonstrate absence of contamination or interferences in the analytical process.
Laboratory Control Spike (LCS) - used to demonstrate laboratory ability to perform the method within specifications by spiking representative analytes into a clean matrix.
Surrogates - compounds added to each sample to ensure that the method requirements are met for each individual sample.

Should you have any questions or comments, please feel free to contact our Client Services department at (602) 437-0099.

Some QA results have been flagged as follows:

J1 - The batch MS and/or MSD were outside acceptance limits. The LCS was acceptable.

Bob George
Lab Manager

8-14-01
Date

CERTIFICATIONS:

	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
US Army Corps of Engineers	Certified	Certified

	Reno	Las Vegas
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada	NV033	NV052
L.A.C.S.D.		

NEL LABORATORIES

CLIENT: Del Mar Analytical
PROJECT ID: PKG0501-MCFC
PROJECT #: NA

TEST: **Metals**
MATRIX: Aqueous

CLIENT ID: **PKG0501-01**
DATE SAMPLED: 7/29/01
NEL SAMPLE ID: P0107070-01

ANALYST: JY

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	DIGESTED	ANALYZED
Arsenic	0.0015	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT: Del Mar Analytical
PROJECT ID: PKG0501-MCFC
PROJECT #: NA

CLIENT ID: **PKG0501-02**
DATE SAMPLED: 7/29/01
NEL SAMPLE ID: P0107070-02

TEST: **Dissolved Metals**
MATRIX: Aqueous

ANALYST: JY

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	DIGESTED	ANALYZED
Arsenic, Dissolved	0.0019	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01
Beryllium, Dissolved	ND	0.0005 mg/L	1	EPA 200.8	8/2/01	8/10/01
Copper, Dissolved	0.011	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01
Silver, Dissolved	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01

D.F. - Dilution Factor

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

NEL LABORATORIES

CLIENT: Del Mar Analytical
PROJECT ID: PKG0501-MCFC
PROJECT #: NA
TEST: **Metals**

CLIENT ID: **Method Blank**
DATE SAMPLED: NA
NEL SAMPLE ID: 0802-1.3-BLK

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	DIGESTED	ANALYZED
Arsenic	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT: Del Mar Analytical
PROJECT ID: PKG0501-MCFC
PROJECT #: NA

CLIENT ID: **Method Blank**
DATE SAMPLED: NA
NEL SAMPLE ID: 0802-1.4-BLK

TEST: **Dissolved Metals**

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	DIGESTED	ANALYZED
Arsenic, Dissolved	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01
Beryllium, Dissolved	ND	0.0005 mg/L	1	EPA 200.8	8/2/01	8/10/01
Copper, Dissolved	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01
Silver, Dissolved	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT: Del Mar Analytical
PROJECT ID: PKG0501-MCFC
PROJECT #: NA
TEST: **Metals**
MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike Amount	Spike Result	Percent Recovery		Acceptable Range	RPD
Strontium	0802-1.3-LCS	10	10	100		85 - 115	
Strontium	P0107066-01-MS	10	13.2	103		75 - 125	
Strontium	P0107066-01-MSD	10	13.5	106		75 - 125	2.9
Antimony	0802-1.3-LCS	0.005	0.0045	90		85 - 115	
Antimony	P0107066-01-MS	0.005	0.00594	119		75 - 125	
Antimony	P0107066-01-MSD	0.005	0.00587	117		75 - 125	1.2
Arsenic	0802-1.3-LCS	0.01	0.00995	100		85 - 115	
Arsenic	P0107066-01-MS	0.01	0.041	90		75 - 125	
Arsenic	P0107066-01-MSD	0.01	0.0433	113		75 - 125	22.7
Lead	0802-1.3-LCS	0.005	0.00556	111		85 - 115	
Lead	P0107066-01-MS	0.005	0.00545	109		75 - 125	
Lead	P0107066-01-MSD	0.005	0.00925	185	J1	75 - 125	51.7
Selenium	0802-1.3-LCS	0.01	0.0106	106		85 - 115	
Selenium	P0107066-01-MS	0.01	0.0139	113		75 - 125	
Selenium	P0107066-01-MSD	0.01	0.0141	115		75 - 125	1.8
Thallium	0802-1.3-LCS	0.005	0.0052	104		85 - 115	
Thallium	P0107066-01-MS	0.005	0.00554	111		75 - 125	
Thallium	P0107066-01-MSD	0.005	0.00578	116		75 - 125	4.2

ND - Not Detected

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CLIENT: Del Mar Analytical
PROJECT ID: PKG0501-MCFC
PROJECT #: NA
TEST: **Metals**
MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike Amount	Spike Result	Percent Recovery	Acceptable Range	RPD
Arsenic, Dissolved	0802-1.4-LCS	0.1	0.0956	96	85 - 115	
Arsenic, Dissolved	P0107062-02-MS	0.1	0.0997	100	70 - 130	
Arsenic, Dissolved	P0107062-02-MSD	0.1	0.1	100	70 - 130	0.3
Beryllium, Dissolved	0802-1.4-LCS	0.1	0.102	102	85 - 115	
Beryllium, Dissolved	P0107062-02-MS	0.1	0.102	102	70 - 130	
Beryllium, Dissolved	P0107062-02-MSD	0.1	0.102	102	70 - 130	0.
Copper, Dissolved	0802-1.4-LCS	0.05	0.0473	95	85 - 115	
Copper, Dissolved	P0107062-02-MS	0.05	0.0481	96	70 - 130	
Copper, Dissolved	P0107062-02-MSD	0.05	0.0489	98	70 - 130	1.6
Silver, Dissolved	0802-1.4-LCS	0.1	0.107	107	85 - 115	
Silver, Dissolved	P0107062-02-MS	0.1	0.112	112	70 - 130	
Silver, Dissolved	P0107062-02-MSD	0.1	0.113	113	70 - 130	0.9

ND - Not Detected

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TRANSWEST GEOCHEM

August 07, 2001

Linda Eshelman
Del Mar Analytical
9830 S. 51st Street
Suite B-120
Phoenix, AZ 85044

RE: PKG0501-MCFC
Work Order No.: 0107262

Dear Linda,
Transwest Geochem, Inc. received 1 sample on 7/30/2001 4:53:00 PM for the analyses presented in the following report.

The Case Narrative of this report addresses any Quality Control and/or Quality Assurance issues associated with this Work Order.

If you have any questions regarding these test results, please feel free to call us at (602) 437-0330.

Sincerely,

Michael E. Barber for

Beth Proffitt
Project Manager

ADHS License No. AZM133/AZ0133

3725 E. Atlanta Ave. • Suite 2 • Phoenix, Arizona 85040 • (602) 437-0330 • 1-800-927-5183 • Fax (602) 437-0660

Client: Del Mar Analytical
Work Order: 0107262
Project Name: PKG0501-MCFC
Project Number:

Date Printed: 07-Aug-01

CASE NARRATIVE

Transwest Geochem, Inc. uses the methods outlined in the following references:

Code of Federal Regulations, 40CFR, Part 136, Revised July 1995.

Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992 and 19th Edition, 1995.

Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Revised March 1983.

Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, Revised August 1993.

Methods for the Determination of Metals in Environmental Samples, EPA/600/R-94/111, Revised May 1994.

Hach, Water Analysis Handbook, 2nd Edition, 1992.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Secondary Source QC Sample (LCSV) results may not be reported for all methods and/or analysis dates.

All method blanks, laboratory spikes, and/or matrix spikes met quality control objectives for the parameters associated with this Work Order.

Data qualifiers ("flags") contained within this analytical report have been issued to explain a quality control deficiency, and do not affect the quality (validity) of the data unless noted otherwise in the case narrative.

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TRANSWEST GEOCHEM

Date Printed 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Project Name: PKG0501-MCFC
Project Number:
Work Order: 0107262
Date Received: 30-Jul-01

Work Order Sample Summary

Client Sample ID	Lab Sample ID	Test Code	Collection Date
PKG0501-01	0107262-01A	EPA420.1	7/29/2001 11:15:00 PM

Date Printed 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Project Name: PKG0501-MCFC
Project Number:
Work Order: 0107262
Date Received: 30-Jul-01

Definitions

Analytical Spike (AS)	The AS is a known amount of a target analyte added to a sample after it has been distilled, digested, or extracted and is ready for analysis. The AS is generally performed if the MS has failed. It is used to indicate interference that arises from sample distillation, digestion, or extraction as opposed to interference that is innate to the matrix.
Continuing Curve Verification (CCV)	The CCV is also referred to as a curve check. This is a standard analyzed at specified intervals during an analysis. The CCV verifies the stability and accuracy of the calibration curve. There are specific CCV recovery acceptance criteria for each method.
Dilution Factor (DF)	The DF is an indication of how much a sample had to be diluted in order to quantitate it on a standard curve. The DF is indicated in the reported sample result. The sample PQL increases as the dilution increases.
Internal Standard (IS)	The IS is a compound that is similar to the organic compound of interest in terms of chemical composition but is unique in that it is rare in the environment. The same concentration of IS is added to every sample for some organic methods.
Laboratory Control Sample (LCS)	The LCS is also referred to as a blank spike. The LCS is an addition of a known amount of a target analyte (from the same source as calibration standards or spikes) to an aliquot of deionized water or other appropriate clean matrix. The LCS is processed through the entire method procedure in the same manner as samples.
Matrix Spike (MS)	The MS is a known amount of a target analyte added to a sample. The MS is processed through the entire method procedure in the same manner as samples.
Method Blank (MB)	The MB is an aliquot of deionized water or other appropriate clean matrix that is thought to be free of the analyte in question. The MB is processed through the entire extraction or analysis procedure and is used to indicate contamination in the lab.
Method Detection Limit (MDL)	The MDL is the lowest level of detection of which a method is capable.
Practical Quantitation Limit (PQL)	The PQL is the lowest value at which Transwest Geochem can detect an analyte in matrix with a high degree of confidence. The PQL will increase as the DF increases. The PQL is greater than or equal to the MDL.
Relative Percent Difference (RPD)	The RPD is a measure of precision (the ability to obtain the same result on re-analysis of the same sample). It is calculated using the result of a sample, MS, LCS, or LCSV and its associated duplicate result.
Secondary Source QC Sample (LCSV)	The LCSV is also referred to as a second source laboratory control sample. It is the same type of standard as a calibration or spiking standard but is obtained from a different source. The LCSV is an indication of the primary standard quality, method performance, and instrument performance.
Surrogate	A surrogate compound is similar to the organic compound of interest in terms of chemical composition but is unique in that it is rare in the environment. When surrogates are used, they are added to every sample, blank and standard. Surrogate recovery is used as an indication of extraction and/or analytical success.
Trip Blank (TB)	The TB is a portion of deionized water preserved in the same manner as the samples. The TB travels from the lab, to the field, and then back to the lab with the samples from the field. The TB serves as an indication of contamination introduced during sample transportation.

TRANSWEST GEOCHEM

Date Printed 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Work Order: 0107262
Lab ID: 0107262-01
Project Name: PKG0501-MCFC
Project Number:

Client Sample ID: PKG0501-01
Collection Date: 7/29/2001 11:15:00 PM
Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Test Code	Date Prepared	Date Analyzed	Analyst	Batch ID
Phenolics, Total Recoverable	0.0065	0.0050		mg/L	1	EPA420.1	8/3/01	8/6/01	KMB	420.1-8/6/2001

Confidential and Privileged

Date: 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Work Order: 0107262
Project: PKG0501-MCFC

QC SUMMARY REPORT

Method Blank

Analyte	Result	PQL	Qual	Units	DF	Test Code	Date Prepared	Date Analyzed	Analyst	Batch ID
Phenolics, Total Recoverable	<0.0050	0.0050		mg/L	1	EPA420.1	8/3/01	8/6/01	KMB	420.1-8/6/2001

Date: 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Work Order: 0107262
Project: PKG0501-MCFC

QC SUMMARY REPORT

Sample Matrix Spike

Analyte	Result	PQL	SPK value	SPK Ref Val	% Rec	Low Limit	High Limit	RPD Ref Val	% RPD	RPD Limit	Qual
Sample ID: **0107221-01ASD**	Batch ID: 420.1-8/6/2001			Test Code: EPA420.1				Date Analyzed: 8/6/01			
Client ID:				Units: mg/L				Date Prepared: 8/3/01			
Phenolics, Total Recoverable	0.1095	0.0050	0.1000	0.007900	102%	80	120	0.1111	1%	20	
Sample ID: **0107221-01AS**	Batch ID: 420.1-8/6/2001			Test Code: EPA420.1				Date Analyzed: 8/6/01			
Client ID:				Units: mg/L				Date Prepared: 8/3/01			
Phenolics, Total Recoverable	0.1111	0.0050	0.1000	0.007900	103%	80	120				

TRANSWEST GEOCHEM

Date: 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Work Order: 0107262
Project: PKG0501-MCFC

QC SUMMARY REPORT

Blank Spike (primary source)

Analyte	Result	PQL	SPK value	SPK Ref Val	% Rec	Low Limit	High Limit	RPD Ref Val	% RPD	RPD Limit	Qual
Sample ID: **LCSD**	Batch ID: 420.1-8/6/2001			Test Code: EPA420.1				Date Analyzed: 8/6/01			
				Units: mg/L				Date Prepared: 8/3/01			
Phenolics, Total Recoverable	0.09780	0.0050	0.1000	<0.0050	98%	85	115	0.1125	14%	20	
Sample ID: **LCS**	Batch ID: 420.1-8/6/2001			Test Code: EPA420.1				Date Analyzed: 8/6/01			
				Units: mg/L				Date Prepared: 8/3/01			
Phenolics, Total Recoverable	0.1125	0.0050	0.1000	<0.0050	113%	85	115				

** OCT 1 2001 AT 1331 NWIS PROGRAM QACARDSIN/QWCARDSIN TRANSACTION NO.: 39

United States Department of the Interior
U.S. Geological Survey
Water Resources Division
National Laboratory
Arvada, Colorado

RECORD NO.: 00100551
SITE ID: USGS 333238112165201 LAB ID NO.: PROJECT: 470416800
STATION NAME: INDPARK-ORANGEWOOD/WEST OF NEW RIVER STATE: 04
BEGIN DATE: 07-29-2001 AT 2337 END DATE: - - AT COUNTY: 013
GEOLOGIC UNIT: DATA TYPES: CH ME NU
STATUS: H SOURCE: 9 HYD. CONDITION: 9 TYPE: 9 HYD. EVENT: J
MEDIUM: 9 REMARKS TO LAB: Pared NPDES Sample. Sent to Ocala Lab.
SAMPLE COST: $148.90 REMARKS FROM LAB: OCALA LABID ID NUMBER: 200109190
SCHEDULES USED:
NO. PARAMETERS: 37 PROCESSING STATUS: R

	CODE	PARAMETER NAME	UNITS	VALUE	REM	QA	MET	PREC CODE
	00010	WATER TEMPERATURE	(DEGREES C)	26.		I		3
	00025	AIR PRESSURE	(MM OF HG)	733.		I		3
	00027	COLLECTING AGENCY	(CODE NUMBER)	1028.		I		5
UPDATE	00028	ANALYZING AGENCY	(CODE NUMBER)	81213.		I	A	5
	00061	DISCHARGE, INST.	CFS	8.61		I		3
	00063	NUMBER OF SAMPLING P	(COUNT)	1.		I		1
	00065	GAGE HEIGHT	(FEET)	.8		I		4
	00095	SPECIFIC CONDUCTANCE	US/CM @ 25C	197.		I		3
	00129	PRECIPITATION INT. 1	(INCHES/HOUR)	2.76		I		2
	00132	DRY DAYS	(DAYS)	26.		I		3
	00135	STORM TIME (HOURS)	(HOURS)	4.22		I		2
	00300	OXYGEN DISSOLVED	(MG/L)	3.3		I		2
NEW-->	00340	COD HIGH LEVEL MG/L	(MG/L)	98.		A	0	2
	00400	PH, WH, FIELD	(STANDARD UNITS)	7.54		I		2
NEW-->	00403	PH, WH, LABORATORY	(STANDARD UNITS)	7.47		A	A	3
	00419	ANC, IT, FIELD	(MG/L AS CACO3)	76.		I		2
	00447	ANC CARB IT FIELD	(MG/L AS CO3)	.0		I		3
	00450	ANC BICARB IT FIELD	(MG/L AS HCO3)	93.		I		2
	00452	CARBONATE,DIS,IT,F	(MG/L AS CO3)	.0		I	B	2
	00453	BICARBONATE,DIS,IT,F	(MG/L AS HCO3)	40.		I	B	2
NEW-->	00530	RESIDUE TOTAL	(MG/L)	1000.		A	B	2
COMPUTED	00605	NITROGEN ORGANIC T.	(MG/L AS N)	4.3				
NEW-->	00610	NITROGEN AMMONIA T.	(MG/L AS N)	1.		A	F	2
NEW-->	00625	NITROGEN AMM+ORG TOT	(MG/L AS N)	5.3		A	D	2
NEW-->	00630	NO2 + NO3 TOTAL	(MG/L AS N)	1.4		A	E	2
NEW-->	00665	PHOSPHORUS TOTAL	(MG/L AS P)	1.9		A	D	2
NEW-->	00666	PHOSPHORUS DISS.	(MG/L AS P)	.32		A	D	2
NEW-->	01027	CADMIUM TOTAL	(UG/L AS CD)	.5	1	A	4	1
NEW-->	01042	COPPER TOTAL	(UG/L AS CU)	38.		A	1	2
NEW-->	01051	LEAD TOTAL	(UG/L AS PB)	17.		A	4	2
NEW-->	01092	ZINC TOTAL	(UG/L AS ZN)	130.		A	1	2
	39086	ALKALINITY,DIS,IT,F	(MG/L AS CACO3)	33.		I	B	2
NEW-->	70300	RESIDUE DIS 180C	MG/L	137.		A	A	3
	81395	STORM WATER FLOW	(MGD)	.063		I		2
	82381	PRECIPITATION TOTAL	INCHES	.59		I		2
	82398	SAMPLING METHOD	METHOD, CODES	30.		I		2
NEW-->	90410	ANC, TIT. 4.5, LAB	MG/L AS CACO3	116.		A	A	3
NEW-->	99870	IN-BOTTLE DIGESTION	DDD	1.		A	8	2

********** ERROR REPORT AND MESSAGES TO AND FROM LAB FOR TRANSACTION NO. 39 **********

PARAMETER 00028 CHANGED FROM 1028. REM/QA/MET/SIG = (I 5) TO 81213. REM/QA/MET/SIG = (IA5)

MESSAGE FROM LAB OCALA LABID ID NUMBER: 200109190

PARAMETER 01051 VALUE 17 EXCEEDS DW ALERT LIMIT OF 15.000

RECORD NUMBER: 00100551

STATION ID: USGS 333238112165201

STATION NAME: INDPARK-ORANGEWOOD/WEST OF NEW RIVER

COLLECTION DATE: 07-29-2001 2337 - -

PARTIAL BALANCE

CATIONS	(MG/L)	(MEQ/L)	ANIONS	(MG/L)	(MEQ/L)
			BICARB., DIS, IT, FLD	40	0.656
			CARB., DIS, IT, FLD	0	0.001
TOTAL		0.001	TOTAL		0.656

PERCENT DIFFERENCE =-100.00

Lab Id Number	Field Id Number	Station Id Number	Collection Date / Time	Project Account	Cost $	Station Name
200109190		333238112165201	07/29/2001 23:37	470416800	148.90	IND PARK

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*****************************************************
*   U.S. Geological Survey, WRD - Q.W. Service Unit   *
*        4500 S.W. 40th Avenue - Ocala, Florida       *
*  Telephone: (352) 237-5514 FLDEP CompQAP # 910161G  *
*            Processing Date: 10/01/2001              *
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*****************************************************************************************************************
* Lab Id Number: 200109190  Field Id Number:          Station Id Number: 333238112165201  Date: 07/29/2001  Time: 23:37  *
* NWIS Record Number:              SMS Control Number:              Site Type:                                          *
* Station Name: IND PARK                                            State Code:  4  County Code:  13                    *
* Sample Medium: 9  Geologic Unit:          Analysis Status: H  Analysis Source: 9  Hydrologic Condition: 9  Sample Type: 9  *
* Hydrologic Event: J  Project Account: 470416800  Analysis Cost: $  148.90  District/User Code: 04                    *
*****************************************************************************************************************
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Cation Parameter(s)	Value mg/L	Value meq/L	Anion Parameter(s)	Value mg/L	Value meq/L	Selected Parameter(s)	Reported Value
Ammonia as NH4	1.34	0.074	Alk as CaCO3	116.40	2.326	Alk as CaCO3 LAB	116.400
						Sp. Cond. (FLD)	197.000
						ph (LAB)	7.470
						pH (FLD)	7.540
						ROE at 180C	137.400
Cation Total		0.074	Anion Total		2.326		

Lab Code	Watstore Number	Parameter Name	Analysis Method	Reporting Units	Reported Value	Rmk Code	Analysis Date	/ Time
0070	90410(A)	ALKALINITY TOT AS CACO3 (LAB)	I-2030-85	mg/L	116		08/09/2001	11:50
0091	00028(A)	ANALYZING AGENCY	- -	Number	81213		Parameter	
3014	01027(4)	CADMIUM TOTAL (ICP/T)	EPA-200.7	ug/L	0.5	<	08/15/2001	22:48
3063	00340(0)	CHEMICAL OXYGEN DEMAND (EPA)	EPA-410.4	mg/L	98		08/15/2001	
3025	01042(1)	COPPER TOTAL (ICP/T)	EPA-200.7	ug/L	38		08/15/2001	22:48
3157	99870(8)	DIGESTION IN BOTTLE	EPA-1638		1		08/01/2001	23:01
3001	99899(0)	JULIAN LOGIN DATE	- -	Number	2001213		Calculated	
3029	01051(4)	LEAD TOTAL (ICP/T)	EPA-200.7	ug/L	17		08/15/2001	22:48
0072	00600(A)	NITROGEN AS N TOTAL	I-3556-77	mg/L	6.7		Calculated	
0278	71887(A)	NITROGEN AS NO3 TOTAL	- -	mg/L	30		Calculated	
1986	00625(D)	NITROGEN NH3+ORG-N TOTAL	I-4552-84	mg/L	5.3		08/22/2001	10:55
3071	00610(F)	NITROGEN NH3-N TOTAL	I-4522-85	mg/L	1		08/03/2001	10:40
0095	71845(A)	NITROGEN NH4-NH4 TOTAL	- -	mg/L	1.3		Calculated	
3073	00630(E)	NITROGEN NO2+NO3-N TOTAL	I-4545-84	mg/L	1.4		08/03/2001	10:40
0071	00605(A)	NITROGEN ORG-N TOTAL	I-4548-78	mg/L	4.3		Calculated	
0068	00403(A)	PH (LABORATORY)	I-1586-85	pH Units	7.47		09/14/2001	
0051	00400(A)	PH FIELD	I-1586-77	pH Units	7.54		Field Data	
1983	00666(D)	PHOSPHORUS AS P DISSOLVED	I-2600-84	mg/L	0.32		08/08/2001	09:30
1984	00665(D)	PHOSPHORUS AS P TOTAL	I-4600-84	mg/L	1.9		08/08/2001	09:30
3077	71888( )	PHOSPHORUS DISS AS PO4		mg/L	0.99		Calculated	
3702	00667(0)	PHOSPHORUS SUSPENDED	- -	mg/L	1.5		Calculated	
0130	71886(A)	PHOSPHORUS TOTAL AS PO4	- -	mg/L	5.7		Calculated	
3000	99898(0)	QWSU LAB ID NUMBER	- -	Number	200109184		Calculated	
0027	70300(A)	RESIDUE DISSOLVED AT 180 C	I-1750-84	mg/L	137		08/01/2001	
0169	00530(B)	RESIDUE TOT NON-FILT AT 105C	I-3765-84	mg/L	1000		08/01/2001	
0021	00095(A)	SP. CONDUCTANCE FLD	I-1780-85	uS/cm	197		Field Data	
3056	01092(1)	ZINC TOTAL (ICP/T)	EPA-200.7	ug/L	130		08/15/2001	22:48

Lab Review Comment(s) for Lab Id: 200109190

<COMMENT> 3014 (01027) CADMIUM TOTAL (ICP/T) Actual value known to be less than value shown

Parameter Name	Lab Code	Watstore Code	Method	Detection Level	Bottle Requirements
RESIDUE DISSOLVED AT 180 C	27	70300(A)	I-1750-85	1 mg/L	FU
PH (LABORATORY)	68	00403(A)	I-1586-85	0.1 pH Units	RU
ALKALINITY TOT AS CACO3 (LAB)	70	90410(A)	I-2030-85	1 mg/L	RU
RESIDUE TOT NON-FILT AT 105C	169	00530(B)	I-3765-85	1 mg/L	SUSO
PHOSPHORUS AS P DISSOLVED	1983	00666(D)	I-2600-85	0.02 mg/L	FCA
PHOSPHORUS AS P TOTAL	1984	00665(D)	I-4600-85	0.02 mg/L	WCA
NITROGEN NH3+ORG-N TOTAL	1986	00625(D)	I-4552-85	0.2 mg/L	WCA
CADMIUM TOTAL (ICP/T)	3014	01027(4)	EPA-200.7	0.5 ug/L	RA
COPPER TOTAL (ICP/T)	3025	01042(1)	EPA-200.7	2 ug/L	RA
LEAD TOTAL (ICP/T)	3029	01051(4)	EPA-200.7	2 ug/L	RA
ZINC TOTAL (ICP/T)	3056	01092(1)	EPA-200.7	2 ug/L	RA
CHEMICAL OXYGEN DEMAND (EPA)	3063	00340(0)	EPA-410.4	5 mg/L	COD
NITROGEN NH3-N TOTAL	3071	00610(F)	I-4522-85	0.01 mg/L	RCC
NITROGEN NO2-N TOTAL	3072	00615(B)	I-4540-85	0.01 mg/L	RCC
NITROGEN NO2+NO3-N TOTAL	3073	00630(E)	I-4545-85	0.02 mg/L	RCC
PHOSPHORUS PO4-P TOTAL	3074	70507(H)	I-4601-85	0.01 mg/L	RCC

200109190	70300	RESIDUE DISSOLVED AT 180 C	Cal. Blk.	ROE1000146	Value:	-0.400 < 2x Detection Limit <PASSED>
200109190	70300	RESIDUE DISSOLVED AT 180 C	Duplicate	ROE1000146	Value:	63.000 1.6% RSD <PASSED>
200109190	70300	RESIDUE DISSOLVED AT 180 C	QA Sample	ROE1000146	Value:	367.800 Num. Sdev (0.1) <PASSED>
200109190	00403	PH (LABORATORY)	Duplicate	PHS20840	Value:	7.560 0.3% RSD <PASSED>
200109190	90410	ALKALINITY TOT AS CACO3 (LAB)	Duplicate	ALK5012211	Value:	126.526 0.2% RSD <PASSED>
200109190	90410	ALKALINITY TOT AS CACO3 (LAB)	Duplicate	ALK5012211	Value:	7.723 5.9% RSD <PASSED>
200109190	90410	ALKALINITY TOT AS CACO3 (LAB)	QA Sample	ALK5012211	Value:	6.155 Num. Sdev (0.1) <PASSED>
200109190	90410	ALKALINITY TOT AS CACO3 (LAB)	QA Sample	ALK5012211	Value:	111.224 Num. Sdev (0.1) <PASSED>
200109190	90410	ALKALINITY TOT AS CACO3 (LAB)	QA Sample	ALK5012211	Value:	6.485 Num. Sdev (0.3) <PASSED>
200109190	00530	RESIDUE TOT NON-FILT AT 105C	Cal. Blk.	RES6000178	Value:	0.400 < 2x Detection Limit <PASSED>
200109190	00530	RESIDUE TOT NON-FILT AT 105C	Duplicate	RES6000178	Value:	110.300 3.1% RSD <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	1.989 0.6% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	1.525 1.6% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.986 1.4% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.498 0.4% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.242 3.4% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.103 2.5% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.050 0.0% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Std.	NUT4000076	Value:	0.023 15.0% Deviation <FAILED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Corr Coef	NUT4000076	Value:	0.9999 <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	1.988 0.6% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	1.510 0.7% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	0.495 1.0% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	0.486 2.8% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Imd Std.	NUT4000076	Value:	0.992 0.8% Deviation <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.053 Num. Sdev (0.7) <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.893 Num. Sdev (0.9) <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.188 Num. Sdev (1.0) <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	1.661 Num. Sdev (0.2) <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.421 Num. Sdev (1.1) <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	QA Sample	NUT4000076	Value:	0.417 Num. Sdev (1.3) <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Blank	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Blank	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	92.3% Recovery <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	97.4% Recovery <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	105.1% Recovery <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	102.5% Recovery <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	102.5% Recovery <PASSED>
200109190	00666	PHOSPHORUS AS P DISSOLVED	Spike	NUT4000076	Value:	100.0% Recovery <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	1.989 0.6% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	1.525 1.6% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.986 1.4% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.498 0.4% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.242 3.4% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.103 2.5% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.050 0.0% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Std.	NUT4000076	Value:	0.023 15.0% Deviation <FAILED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Cal. Blk.	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Corr Coef	NUT4000076	Value:	0.9999 <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Duplicate	NUT4000076	Value:	0.014 7.7% RSD <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Duplicate	NUT4000076	Value:	0.083 6.4% RSD <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Duplicate	NUT4000076	Value:	0.214 0.9% RSD <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	1.988 0.6% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	1.510 0.7% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	0.495 1.0% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	0.486 2.8% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Imd Std.	NUT4000076	Value:	0.992 0.8% Deviation <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.053 Num. Sdev (0.7) <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.893 Num. Sdev (0.9) <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.188 Num. Sdev (1.0) <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	1.661 Num. Sdev (0.2) <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.421 Num. Sdev (1.1) <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	QA Sample	NUT4000076	Value:	0.417 Num. Sdev (1.3) <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Blank	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Blank	NUT4000076	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	92.3% Recovery <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	97.4% Recovery <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	105.1% Recovery <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	102.5% Recovery <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	102.5% Recovery <PASSED>
200109190	00665	PHOSPHORUS AS P TOTAL	Spike	NUT4000076	Value:	100.0% Recovery <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000080	Value:	4.001 0.0% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000080	Value:	2.983 0.6% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000080	Value:	2.042 2.1% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000080	Value:	0.941 5.9% Deviation <FAILED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000080	Value:	0.524 4.8% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Std.	NUT5000080	Value:	0.258 29.0% Deviation <FAILED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Blk.	NUT5000080	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Blk.	NUT5000080	Value:	0.000 < 2x Detection Limit <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Cal. Blk.	NUT5000080	Value:	0.000 < 2x Detection Limit <PASSED>

200109190	00625	NITROGEN NH3+ORG-N TOTAL	Corr Coef	NUT5000080	Value:	0.9981	<PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Duplicate	NUT5000080	Value:	1.778	3.6% RSD <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Duplicate	NUT5000080	Value:	0.277	1.1% RSD <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Duplicate	NUT5000080	Value:	1.283	0.8% RSD <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Duplicate	NUT5000080	Value:	0.355	2.5% RSD <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000080	Value:	3.969	0.8% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000080	Value:	3.952	1.2% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000080	Value:	2.968	1.1% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000080	Value:	2.046	2.3% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000080	Value:	2.967	1.1% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Imd Std.	NUT5000080	Value:	2.043	2.2% Deviation <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	QA Sample	NUT5000080	Value:	0.531	Num. Sdev (0.1) <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	QA Sample	NUT5000080	Value:	0.530	Num. Sdev (0.1) <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	QA Sample	NUT5000080	Value:	0.478	Num. Sdev (0.3) <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Blank	NUT5000080	Value:	0.003	< 2x Detection Limit <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Blank	NUT5000080	Value:	0.010	< 2x Detection Limit <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Blank	NUT5000080	Value:	0.005	< 2x Detection Limit <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000080	Value:	90.9%	Recovery <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000080	Value:	90.9%	Recovery <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000080	Value:	90.9%	Recovery <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000080	Value:	100.0%	Recovery <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000080	Value:	90.9%	Recovery <PASSED>
200109190	00625	NITROGEN NH3+ORG-N TOTAL	Spike	NUT5000080	Value:	90.9%	Recovery <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Cal. Std.	CD11012272	Value:	101.400	1.4% Deviation <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Cal. Std.	CD11012272	Value:	204.000	2.0% Deviation <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Cal. Std.	CD11012272	Value:	513.000	2.6% Deviation <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Cal. Std.	CD11012272	Value:	1022.100	2.2% Deviation <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Cal. Blk.	CD11012272	Value:	0.073	< 2x Detection Limit <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Corr Coef	CD11012272	Value:	1.0000	<PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Imd Std.	CD11012272	Value:	208.700	4.3% Deviation <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Imd Std.	CD11012272	Value:	1035.500	3.5% Deviation <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	1.891	Num. Sdev (1.0) <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	11.130	Num. Sdev (0.3) <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	22.750	Num. Sdev (0.1) <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	5.547	Num. Sdev (0.6) <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	QA Sample	CD11012272	Value:	6.247	Num. Sdev (0.3) <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Blank	CD11012272	Value:	-0.044	< 2x Detection Limit <PASSED>
200109190	01027	CADMIUM TOTAL (ICP/T)	Spike	CD11012272	Value:	107.5%	Recovery <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Cal. Std.	CU11012272	Value:	98.770	1.2% Deviation <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Cal. Std.	CU11012272	Value:	197.900	1.0% Deviation <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Cal. Std.	CU11012272	Value:	500.800	0.2% Deviation <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Cal. Std.	CU11012272	Value:	1002.500	0.3% Deviation <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Cal. Blk.	CU11012272	Value:	-0.100	< 2x Detection Limit <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Corr Coef	CU11012272	Value:	1.0000	<PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Imd Std.	CU11012272	Value:	199.700	0.2% Deviation <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Imd Std.	CU11012272	Value:	1005.900	0.6% Deviation <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	7.958	Num. Sdev (0.0) <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	39.310	Num. Sdev (0.5) <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	88.950	Num. Sdev (0.8) <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	26.510	Num. Sdev (1.0) <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	QA Sample	CU11012272	Value:	22.390	Num. Sdev (1.1) <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Blank	CU11012272	Value:	-0.025	< 2x Detection Limit <PASSED>
200109190	01042	COPPER TOTAL (ICP/T)	Spike	CU11012272	Value:	108.0%	Recovery <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Cal. Std.	PB11012272	Value:	100.400	0.4% Deviation <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Cal. Std.	PB11012272	Value:	200.600	0.3% Deviation <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Cal. Std.	PB11012272	Value:	506.800	1.4% Deviation <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Cal. Std.	PB11012272	Value:	1013.100	1.3% Deviation <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Cal. Blk.	PB11012272	Value:	0.189	< 2x Detection Limit <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Corr Coef	PB11012272	Value:	1.0000	<PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Imd Std.	PB11012272	Value:	203.800	1.9% Deviation <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Imd Std.	PB11012272	Value:	1022.600	2.3% Deviation <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	9.286	Num. Sdev (0.4) <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	18.290	Num. Sdev (0.3) <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	27.660	Num. Sdev (0.1) <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	6.840	Num. Sdev (0.1) <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	QA Sample	PB11012272	Value:	18.480	Num. Sdev (0.1) <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Blank	PB11012272	Value:	0.640	< 2x Detection Limit <PASSED>
200109190	01051	LEAD TOTAL (ICP/T)	Spike	PB11012272	Value:	107.7%	Recovery <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Cal. Std.	ZN11012272	Value:	103.600	3.6% Deviation <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Cal. Std.	ZN11012272	Value:	208.300	4.2% Deviation <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Cal. Std.	ZN11012272	Value:	522.400	4.5% Deviation <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Cal. Std.	ZN11012272	Value:	1037.700	3.8% Deviation <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Cal. Blk.	ZN11012272	Value:	-0.274	< 2x Detection Limit <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Corr Coef	ZN11012272	Value:	1.0000	<PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Imd Std.	ZN11012272	Value:	1044.200	4.4% Deviation <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	4.665	Num. Sdev (0.5) <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	58.690	Num. Sdev (0.0) <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	55.410	Num. Sdev (0.5) <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	23.380	Num. Sdev (0.0) <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	QA Sample	ZN11012272	Value:	76.550	Num. Sdev (1.0) <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Blank	ZN11012272	Value:	0.065	< 2x Detection Limit <PASSED>
200109190	01092	ZINC TOTAL (ICP/T)	Spike	ZN11012272	Value:	110.0%	Recovery <PASSED>
200109190	00340	CHEMICAL OXYGEN DEMAND (EPA)	Imd Std.	COD10221	Value:	79.682	0.4% Deviation <PASSED>
200109190	00340	CHEMICAL OXYGEN DEMAND (EPA)	Imd Std.	COD10221	Value:	101.760	1.8% Deviation <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000191	Value:	1.000	0.0% Deviation <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000191	Value:	0.501	0.2% Deviation <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000191	Value:	0.251	0.4% Deviation <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000191	Value:	0.095	5.0% Deviation <FAILED>

200109190	00610	NITROGEN NH3-N TOTAL	Cal. Std.	NUT0000191	Value:	0.003	40.0% Deviation <FAILED>
200109190	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000191	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000191	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000191	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Cal. Blk.	NUT0000191	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Corr Coef	NUT0000191	Value:	1.0000	<PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Duplicate	NUT0000191	Value:	0.153	2.3% RSD <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Duplicate	NUT0000191	Value:	0.274	2.1% RSD <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000191	Value:	1.038	3.8% Deviation <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000191	Value:	0.260	4.0% Deviation <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000191	Value:	1.012	1.2% Deviation <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Imd Std.	NUT0000191	Value:	0.499	0.2% Deviation <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000191	Value:	0.091	Num. Sdev (0.6) <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000191	Value:	0.204	Num. Sdev (0.3) <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000191	Value:	0.518	Num. Sdev (0.1) <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000191	Value:	0.102	Num. Sdev (1.2) <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	QA Sample	NUT0000191	Value:	0.518	Num. Sdev (0.1) <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000191	Value:	0.007	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000191	Value:	0.001	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000191	Value:	0.004	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000191	Value:	0.006	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Blank	NUT0000191	Value:	0.008	< 2x Detection Limit <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Spike	NUT0000191	Value:	95.0%	Recovery <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Spike	NUT0000191	Value:	90.0%	Recovery <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Spike	NUT0000191	Value:	106.5%	Recovery <PASSED>
200109190	00610	NITROGEN NH3-N TOTAL	Spike	NUT0000191	Value:	100.0%	Recovery <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Std.	NUT2000184	Value:	0.999	0.1% Deviation <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Std.	NUT2000184	Value:	0.502	0.3% Deviation <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Std.	NUT2000184	Value:	0.252	0.6% Deviation <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Std.	NUT2000184	Value:	0.100	0.0% Deviation <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Blk.	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Blk.	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Blk.	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Cal. Blk.	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Corr Coef	NUT2000184	Value:	1.0000	<PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000184	Value:	0.504	2.1% RSD <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Duplicate	NUT2000184	Value:	0.821	1.8% RSD <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Imd Std.	NUT2000184	Value:	0.102	2.0% Deviation <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000184	Value:	0.064	Num. Sdev (0.1) <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000184	Value:	0.221	Num. Sdev (0.0) <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000184	Value:	0.761	Num. Sdev (0.2) <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000184	Value:	0.064	Num. Sdev (0.1) <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	QA Sample	NUT2000184	Value:	0.724	Num. Sdev (0.3) <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Blank	NUT2000184	Value:	0.000	< 2x Detection Limit <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Spike	NUT2000184	Value:	105.0%	Recovery <PASSED>
200109190	00630	NITROGEN NO2+NO3-N TOTAL	Spike	NUT2000184	Value:	100.0%	Recovery <PASSED>

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[illegible]aricopa County -Flood Control District
2801 West Durango Street
[illegible]hoenix, AZ 85009
[illegible]ttention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01
Issued: 08/08/01

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX
PKG0506-01	IND.PARK-GRAB	Water
PKG0506-02	TRIP BLANK	Water

FLOOD CONTROL DISTRICT
RECEIVED
SEP 26 '01
[illegible] FINANCE
PIO LANDS
ADMIN O & M
REG P & PM
ENG FILE
CONTRACTS JRC
ROUTING

[illegible]MPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

OBSERVATIONS: No significant observations were made.

SUBCONTRACTED: Analysis was subcontracted to ES Environmental Services/Severn Trent - 3333 S. Price Road, Chandler, AZ (AZ0021). Results are attached.

QA/QC CRITERIA: All analyses met method criteria.

EXPLANATION OF [illegible]ATA QUALIFIERS: No further explanation of data qualifiers needed.

DEL MAR ANALYTICAL , PHOENIX (AZ0426)

Linda Eshelman
[illegible]oject Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

TOTAL RECOVERABLE OIL & GREASE (EPA 413.2)

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0506-01 (IND.PARK-GRAB - Water)								
Oil & Grease	EPA 413.2	P1H0225	1.0	ND	1	8/2/01	8/2/01	

DEL MAR ANALYTICAL, PHOENIX (AZ0426

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0506-01 (IND.PARK-GRAB - Water)								
Benzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Bromodichloromethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Bromoform	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Bromomethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Carbon tetrachloride	EPA 624	P1H0110	2.5	ND	1	7/31/01	7/31/01	
Chlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Dibromochloromethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Chloroethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Chloroform	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Chloromethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
1,2-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,3-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,4-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1-Dichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,2-Dichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1-Dichloroethene	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
trans-1,2-Dichloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,2-Dichloropropane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
cis-1,3-Dichloropropene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
trans-1,3-Dichloropropene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Ethylbenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Methylene chloride	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
1,1,2,2-Tetrachloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Tetrachloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Toluene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1,1-Trichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1,2-Trichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Trichloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Trichlorofluoromethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Vinyl chloride	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Surrogate: Dibromofluoromethane (80-120%)				*112 %*				
Surrogate: Toluene-d8 (80-120%)				*108 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*94.4 %*				

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0506-02 (TRIP BLANK - Water)								
Benzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Bromodichloromethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Bromoform	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Bromomethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Carbon tetrachloride	EPA 624	P1H0110	2.5	ND	1	7/31/01	7/31/01	
Chlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Dibromochloromethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Chloroethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Chloroform	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Chloromethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
1,2-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,3-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,4-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1-Dichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,2-Dichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1-Dichloroethene	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
trans-1,2-Dichloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,2-Dichloropropane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
cis-1,3-Dichloropropene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
trans-1,3-Dichloropropene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Ethylbenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Methylene chloride	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
1,1,2,2-Tetrachloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Tetrachloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Toluene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1,1-Trichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1,2-Trichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Trichloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Trichlorofluoromethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Vinyl chloride	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Surrogate: Dibromofluoromethane (80-120%)				*111 %*				
Surrogate: Toluene-d8 (80-120%)				*109 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*94.8 %*				

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Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

TOTAL RECOVERABLE OIL & GREASE (EPA 413.2)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0225 Extracted: 08/02/01										
Blank Analyzed: 08/02/01 (P1H0225-BLK1)										
Oil & Grease	ND	1.0	mg/l							
LCS Analyzed: 08/02/01 (P1H0225-BS1)										
Oil & Grease	**12.0**	1.0	mg/l	10.0		120	100-130			
LCS Dup Analyzed: 08/02/01 (P1H0225-BSD1)										
Oil & Grease	**12.4**	1.0	mg/l	10.0		124	100-130	3.28	20	

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Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
Blank Analyzed: 07/31/01 (P1H0110-BLK1)										
Benzene	ND	2.0	ug/l							
Bromodichloromethane	ND	2.0	ug/l							
Bromoform	ND	5.0	ug/l							
Bromomethane	ND	5.0	ug/l							
Carbon tetrachloride	ND	2.5	ug/l							
Chlorobenzene	ND	2.0	ug/l							
Dibromochloromethane	ND	2.0	ug/l							
Chloroethane	ND	5.0	ug/l							
Chloroform	ND	2.0	ug/l							
Chloromethane	ND	5.0	ug/l							
1,2-Dichlorobenzene	ND	2.0	ug/l							
1,3-Dichlorobenzene	ND	2.0	ug/l							
1,4-Dichlorobenzene	ND	2.0	ug/l							
1,1-Dichloroethane	ND	2.0	ug/l							
1,2-Dichloroethane	ND	2.0	ug/l							
1,1-Dichloroethene	ND	5.0	ug/l							
trans-1,2-Dichloroethene	ND	2.0	ug/l							
1,2-Dichloropropane	ND	2.0	ug/l							
cis-1,3-Dichloropropene	ND	2.0	ug/l							
trans-1,3-Dichloropropene	ND	2.0	ug/l							
Ethylbenzene	ND	2.0	ug/l							
Methylene chloride	ND	5.0	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	ug/l							
Tetrachloroethene	ND	2.0	ug/l							
Toluene	ND	2.0	ug/l							
1,1,1-Trichloroethane	ND	2.0	ug/l							
1,1,2-Trichloroethane	ND	2.0	ug/l							
Trichloroethene	ND	2.0	ug/l							
Trichlorofluoromethane	ND	5.0	ug/l							
Vinyl chloride	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	*27.1*		*ug/l*	*25.0*		*108*	*80-120*			
Surrogate: Toluene-d8	*27.4*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.2*		*ug/l*	*25.0*		*96.8*	*80-120*			

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Maricopa County -Flood Control District
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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
LCS Analyzed: 07/31/01 (P1H0110-BS1)										
Benzene	**27.0**	2.0	ug/l	25.0		108	37-151			
Bromodichloromethane	**24.5**	2.0	ug/l	25.0		98.0	35-155			
Bromoform	**19.8**	5.0	ug/l	25.0		79.2	45-169			
Bromomethane	**28.9**	5.0	ug/l	25.0		116	5-242			
Carbon tetrachloride	**28.9**	2.5	ug/l	25.0		116	70-140			
Chlorobenzene	**26.2**	2.0	ug/l	25.0		105	37-160			
Dibromochloromethane	**21.7**	2.0	ug/l	25.0		86.8	53-149			
Chloroethane	**26.2**	5.0	ug/l	25.0		105	14-230			
Chloroform	**26.5**	2.0	ug/l	25.0		106	51-138			
Chloromethane	**24.4**	5.0	ug/l	25.0		97.6	5-273			
1,2-Dichlorobenzene	**24.0**	2.0	ug/l	25.0		96.0	18-190			
1,3-Dichlorobenzene	**24.8**	2.0	ug/l	25.0		99.2	59-156			
1,4-Dichlorobenzene	**24.9**	2.0	ug/l	25.0		99.6	18-190			
1,1-Dichloroethane	**26.2**	2.0	ug/l	25.0		105	59-155			
1,2-Dichloroethane	**22.1**	2.0	ug/l	25.0		88.4	49-155			
1,1-Dichloroethene	**27.6**	5.0	ug/l	25.0		110	5-234			
trans-1,2-Dichloroethene	**27.5**	2.0	ug/l	25.0		110	54-156			
1,2-Dichloropropane	**24.4**	2.0	ug/l	25.0		97.6	5-210			
cis-1,3-Dichloropropene	**23.2**	2.0	ug/l	25.0		92.8	5-227			
trans-1,3-Dichloropropene	**20.7**	2.0	ug/l	25.0		82.8	17-183			
Ethylbenzene	**26.4**	2.0	ug/l	25.0		106	37-162			
Methylene chloride	**25.0**	5.0	ug/l	25.0		100	5-221			
1,1,2,2-Tetrachloroethane	**16.4**	2.0	ug/l	25.0		65.6	46-157			
Tetrachloroethene	**24.4**	2.0	ug/l	25.0		97.6	64-148			
Toluene	**25.8**	2.0	ug/l	25.0		103	47-150			
1,1,1-Trichloroethane	**27.0**	2.0	ug/l	25.0		108	52-162			
1,1,2-Trichloroethane	**20.7**	2.0	ug/l	25.0		82.8	52-150			
Trichloroethene	**24.2**	2.0	ug/l	25.0		96.8	71-157			
Trichlorofluoromethane	**29.1**	5.0	ug/l	25.0		116	17-181			
Vinyl chloride	**27.2**	2.0	ug/l	25.0		109	5-251			
Surrogate: Dibromofluoromethane	*27.4*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Toluene-d8	*27.2*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.4*		*ug/l*	*25.0*		*97.6*	*80-120*			

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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
LCS Dup Analyzed: 07/31/01 (P1H0110-BSD1)										
Benzene	**26.7**	2.0	ug/l	25.0		107	37-151	1.12	20	
Bromodichloromethane	**24.7**	2.0	ug/l	25.0		98.8	35-155	0.813	20	
Bromoform	**19.7**	5.0	ug/l	25.0		78.8	45-169	0.506	20	
Bromomethane	**28.8**	5.0	ug/l	25.0		115	5-242	0.347	20	
Carbon tetrachloride	**28.4**	2.5	ug/l	25.0		114	70-140	1.75	20	
Chlorobenzene	**26.2**	2.0	ug/l	25.0		105	37-160	0.00	20	
Dibromochloromethane	**22.0**	2.0	ug/l	25.0		88.0	53-149	1.37	20	
Chloroethane	**26.3**	5.0	ug/l	25.0		105	14-230	0.381	20	
Chloroform	**26.2**	2.0	ug/l	25.0		105	51-138	1.14	20	
Chloromethane	**24.7**	5.0	ug/l	25.0		98.8	5-273	1.22	20	
1,2-Dichlorobenzene	**24.1**	2.0	ug/l	25.0		96.4	18-190	0.416	20	
1,3-Dichlorobenzene	**24.9**	2.0	ug/l	25.0		99.6	59-156	0.402	20	
1,4-Dichlorobenzene	**25.0**	2.0	ug/l	25.0		100	18-190	0.401	20	
1,1-Dichloroethane	**25.6**	2.0	ug/l	25.0		102	59-155	2.32	20	
1,2-Dichloroethane	**22.2**	2.0	ug/l	25.0		88.8	49-155	0.451	20	
1,1-Dichloroethene	**27.6**	5.0	ug/l	25.0		110	5-234	0.00	20	
trans-1,2-Dichloroethene	**27.4**	2.0	ug/l	25.0		110	54-156	0.364	20	
1,2-Dichloropropane	**24.7**	2.0	ug/l	25.0		98.8	5-210	1.22	20	
cis-1,3-Dichloropropene	**23.1**	2.0	ug/l	25.0		92.4	5-227	0.432	20	
trans-1,3-Dichloropropene	**20.2**	2.0	ug/l	25.0		80.8	17-183	2.44	20	
Ethylbenzene	**26.4**	2.0	ug/l	25.0		106	37-162	0.00	20	
Methylene chloride	**24.8**	5.0	ug/l	25.0		99.2	5-221	0.803	20	
1,1,2,2-Tetrachloroethane	**16.3**	2.0	ug/l	25.0		65.2	46-157	0.612	20	
Tetrachloroethene	**24.7**	2.0	ug/l	25.0		98.8	64-148	1.22	20	
Toluene	**25.7**	2.0	ug/l	25.0		103	47-150	0.388	20	
1,1,1-Trichloroethane	**26.8**	2.0	ug/l	25.0		107	52-162	0.743	20	
1,1,2-Trichloroethane	**21.3**	2.0	ug/l	25.0		85.2	52-150	2.86	20	
Trichloroethene	**24.8**	2.0	ug/l	25.0		99.2	71-157	2.45	20	
Trichlorofluoromethane	**27.1**	5.0	ug/l	25.0		108	17-181	7.12	20	
Vinyl chloride	**27.6**	2.0	ug/l	25.0		110	5-251	1.46	20	
Surrogate: Dibromofluoromethane	*27.4*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Toluene-d8	*27.2*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.6*		*ug/l*	*25.0*		*98.4*	*80-120*			

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
Matrix Spike Analyzed: 08/01/01 (P1H0110-MS1)					**Source: PKG0542-03**					
Benzene	26.2	2.0	ug/l	25.0	ND	105	37-151			
Bromodichloromethane	23.0	2.0	ug/l	25.0	ND	92.0	35-155			
Bromoform	14.4	5.0	ug/l	25.0	ND	57.6	45-169			
Bromomethane	19.6	5.0	ug/l	25.0	ND	78.4	5-242			
Carbon tetrachloride	28.9	2.5	ug/l	25.0	ND	116	70-140			
Chlorobenzene	25.5	2.0	ug/l	25.0	ND	102	37-160			
Dibromochloromethane	18.3	2.0	ug/l	25.0	ND	73.2	53-149			
Chloroethane	21.0	5.0	ug/l	25.0	ND	84.0	14-230			
Chloroform	26.4	2.0	ug/l	25.0	ND	106	51-138			
Chloromethane	13.9	5.0	ug/l	25.0	ND	55.6	5-273			
1,2-Dichlorobenzene	21.8	2.0	ug/l	25.0	ND	87.2	18-190			
1,3-Dichlorobenzene	23.7	2.0	ug/l	25.0	ND	94.8	59-156			
1,4-Dichlorobenzene	23.4	2.0	ug/l	25.0	ND	93.6	18-190			
1,1-Dichloroethane	25.1	2.0	ug/l	25.0	ND	100	59-155			
1,2-Dichloroethane	20.6	2.0	ug/l	25.0	ND	82.4	49-155			
1,1-Dichloroethene	22.1	5.0	ug/l	25.0	ND	88.4	5-234			
trans-1,2-Dichloroethene	23.2	2.0	ug/l	25.0	ND	92.8	54-156			
1,2-Dichloropropane	23.1	2.0	ug/l	25.0	ND	92.4	5-210			
cis-1,3-Dichloropropene	19.0	2.0	ug/l	25.0	ND	76.0	5-227			
trans-1,3-Dichloropropene	16.2	2.0	ug/l	25.0	ND	64.8	17-183			
Ethylbenzene	28.2	2.0	ug/l	25.0	ND	113	37-162			
Methylene chloride	21.9	5.0	ug/l	25.0	ND	87.6	5-221			
1,1,2,2-Tetrachloroethane	13.8	2.0	ug/l	25.0	ND	55.2	46-157			
Tetrachloroethene	24.0	2.0	ug/l	25.0	ND	96.0	64-148			
Toluene	39.7	2.0	ug/l	25.0	13	107	47-150			
1,1,1-Trichloroethane	27.0	2.0	ug/l	25.0	ND	108	52-162			
1,1,2-Trichloroethane	18.5	2.0	ug/l	25.0	ND	74.0	52-150			
Trichloroethene	23.8	2.0	ug/l	25.0	ND	95.2	71-157			
Trichlorofluoromethane	28.2	5.0	ug/l	25.0	ND	113	17-181			
Vinyl chloride	19.0	2.0	ug/l	25.0	ND	76.0	5-251			
Surrogate: Dibromofluoromethane	*27.9*		*ug/l*	*25.0*		*112*	*80-120*			
Surrogate: Toluene-d8	*27.4*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.0*		*ug/l*	*25.0*		*96.0*	*80-120*			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
Matrix Spike Dup Analyzed: 08/01/01 (P1H0110-MSD1)					**Source: PKG0542-03**					
Benzene	**25.7**	2.0	ug/l	25.0	ND	103	37-151	1.93	20	
Bromodichloromethane	**22.7**	2.0	ug/l	25.0	ND	90.8	35-155	1.31	20	
Bromoform	**14.7**	5.0	ug/l	25.0	ND	58.8	45-169	2.06	20	
Bromomethane	**19.2**	5.0	ug/l	25.0	ND	76.8	5-242	2.06	20	
Carbon tetrachloride	**28.2**	2.5	ug/l	25.0	ND	113	70-140	2.45	20	
Chlorobenzene	**25.2**	2.0	ug/l	25.0	ND	101	37-160	1.18	20	
Dibromochloromethane	**18.3**	2.0	ug/l	25.0	ND	73.2	53-149	0.00	20	
Chloroethane	**20.9**	5.0	ug/l	25.0	ND	83.6	14-230	0.477	20	
Chloroform	**25.9**	2.0	ug/l	25.0	ND	104	51-138	1.91	20	
Chloromethane	**13.6**	5.0	ug/l	25.0	ND	54.4	5-273	2.18	20	
1,2-Dichlorobenzene	**21.9**	2.0	ug/l	25.0	ND	87.6	18-190	0.458	20	
1,3-Dichlorobenzene	**23.7**	2.0	ug/l	25.0	ND	94.8	59-156	0.00	20	
1,4-Dichlorobenzene	**23.5**	2.0	ug/l	25.0	ND	94.0	18-190	0.426	20	
1,1-Dichloroethane	**24.8**	2.0	ug/l	25.0	ND	99.2	59-155	1.20	20	
1,2-Dichloroethane	**20.4**	2.0	ug/l	25.0	ND	81.6	49-155	0.976	20	
1,1-Dichloroethene	**22.3**	5.0	ug/l	25.0	ND	89.2	5-234	0.901	20	
trans-1,2-Dichloroethene	**23.5**	2.0	ug/l	25.0	ND	94.0	54-156	1.28	20	
1,2-Dichloropropane	**23.0**	2.0	ug/l	25.0	ND	92.0	5-210	0.434	20	
cis-1,3-Dichloropropene	**19.1**	2.0	ug/l	25.0	ND	76.4	5-227	0.525	20	
trans-1,3-Dichloropropene	**16.6**	2.0	ug/l	25.0	ND	66.4	17-183	2.44	20	
Ethylbenzene	**28.0**	2.0	ug/l	25.0	ND	112	37-162	0.712	20	
Methylene chloride	**21.4**	5.0	ug/l	25.0	ND	85.6	5-221	2.31	20	
1,1,2,2-Tetrachloroethane	**14.1**	2.0	ug/l	25.0	ND	56.4	46-157	2.15	20	
Tetrachloroethene	**23.7**	2.0	ug/l	25.0	ND	94.8	64-148	1.26	20	
Toluene	**38.6**	2.0	ug/l	25.0	13	102	47-150	2.81	20	
1,1,1-Trichloroethane	**26.4**	2.0	ug/l	25.0	ND	106	52-162	2.25	20	
1,1,2-Trichloroethane	**18.9**	2.0	ug/l	25.0	ND	75.6	52-150	2.14	20	
Trichloroethene	**23.5**	2.0	ug/l	25.0	ND	94.0	71-157	1.27	20	
Trichlorofluoromethane	**27.2**	5.0	ug/l	25.0	ND	109	17-181	3.61	20	
Vinyl chloride	**18.7**	2.0	ug/l	25.0	ND	74.8	5-251	1.59	20	
Surrogate: Dibromofluoromethane	*27.2*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: Toluene-d8	*27.3*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.6*		*ug/l*	*25.0*		*98.4*	*80-120*			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0506

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported.

RPD Relative Percent Difference

Linda Eshelman
Project Manager

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SEVERN TRENT SERVICES

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3333 S. Old Price Road Chandler, Arizona 85248 Tel: (480) 899-0191 Fax: (480) 899-0349
3788 HWY 87 Pine, Arizona 85544 Tel: (520) 476-4189 Fax: (520) 476-4230

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044

Attention: Linda Eshelman

Report Date: August 9, 2001
Date/Time Received: 07/30/01 0708
Project Identification: Glendale- FCD
Sample Description: Stromwater
Purchase Order Number:

LAB RESULTS

Analytical Method	Parameter Description	Sample Identification	Sample Date / Time	Analysis Date/Time	Lab Identification	Reporting Limit	Analytical Results	Units
SM9221E	Fecal Coliform by MTF	Ind.Park-Grab	07/30/01 0340	07/30/01 0930	C01-2042	1	*≥ 160000	MPN/100ml
SM9221F	E. Coli - MPN			07/30/01 0930		1	*12,284	MPN/100ml
SM9230B	Fecal Streptococcus by MTF	Ind.Park-Grab	07/30/01 0340	07/30/01 1125	C01-2043	1	*160,000**	MPN/100ml

* Microbiological incubator exceeded temperature control limits during incubation period.
** Sample exceeded recommended holding time prior to analysis, data result reported as an estimated value.
Analytes reported as N.D. were not present above the stated limit of detection.
SEVERN TRENT ENVIRONMENTAL SERVICES, Chandler - ADHS Licensure AZ0613

Tamara M. Bresette
Project Manager

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Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044

Attention: Linda Esheiman

AUG 15 2001

Report Date: August 10, 2001
Date/Time Received: 07/30/01 1430
Project Identification: PKG0506
Sample Description: Water
Purchase Order Number:

LAB RESULTS

Analytical Method	Parameter Description	Sample Identification	Sample Date / Time	Analysis Date/Time	Lab Identification	Reporting Limit	Analytical Results	Units
405.1	Biochemical Oxygen Demand	PKG0506-01	07/30/01 0340	07/30/01 1830	C01-2063	3	*5.3	mg/L

* See attached QA/QC report.
Analytes reported as N.D. were not present above the stated limit of detection.
SEVERN TRENT ENVIRONMENTAL SERVICES, Chandler - ADHS Licensure AZ0613

Tamara M. Bresette
Project Manager

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402 N. Neely Street Gilbert, Arizona 85233 Tel: (480) 926-3761 Fax: (480) 926-3868

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044

Attention: Linda Eshelman

Report Date: Aug 10, 2001

Project Identification: PKG0506
Matrix: Water
Anaylsis Date: 07/18/01

BOD QUALITY CONTROL REPORT

Analytical Method	Laboratory ID	Blank Result mg/L 0.0-0.2	Spike Conc. mg/L 356-436mg/L	LCS Analytical Result mg/L	Percent Recovery	Sample Duplicates Analytical Result mg/L	Sample Duplicates Analytical Result mg/l	Relative Percent Difference		QC Limits
405.1	Laboratory Control Sample (LCS)	0.00	396	447	113%	451	443	1.8%	**	90-110%
405.1	Seeded Control uptake in sample					0.54	0.54	0.0%	*	0.6-1.0
405.1	C01-2063					39	37	5.3%		0-10%

** Seeded recovery exceeds QC limits.
* Seeded control exceeded QC limits.
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Tamara M. Bresette
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01
Issued: 8/17/01
Revised: 09/11/01

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX
PKG0499-01	IND.PARK-COMP	Water
PKG0499-02	IND.PARK-COMP	Water

SAMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

HOLDING TIMES: Holding times were met.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

OBSERVATIONS: This report has been revised to include a Corrective Action Report omitted from the original report. The MS/MSD recoveries for Benzidine and Hexachlorocyclopentadiene were below the MDL level, therefore not usable. See Corrective Action Report.

SUBCONTRACTED: Analyses were subcontracted to Transwest Geochem - 3725 E. Atlanta Ave., Suite 2, Pheonix, AZ 85040 (AZ0133), and NEL Laboratories - 3021 S. 35th Street, Suite B-6, Phoenix, AZ. Results are attached.

QA/QC CRITERIA: The N2 flag on the 625 indicates that the Matrix Spike recovery was outside the method control limits. See Corrective Action Report.

EXPLANATION OF DATA QUALIFIERS: The D1 flag on the fluoride indicates that the reporting limit was raised due to sample matrix effects.

DEL MAR ANALYTICAL , PHOENIX (AZ0426)

Linda Eshelman
Project Manager

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Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Acenaphthene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Acenaphthylene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Anthracene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Benzidine	EPA 625	P1G3025	100	ND	1	7/30/01	8/3/01	
Benz(a)anthracene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Benzo(b,k)fluoranthene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Benzo(g,h,i)perylene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Benzo(a)pyrene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Bis(2-chloroethoxy)methane	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Bis(2-chloroethyl)ether	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Bis(2-chloroisopropyl)ether	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Bis(2-ethylhexyl)phthalate	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
4-Bromophenyl phenyl ether	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Butyl benzyl phthalate	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2-Chloronaphthalene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
4-Chloro-3-methylphenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2-Chlorophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
4-Chlorophenyl phenyl ether	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Chrysene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Dibenz(a,h)anthracene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Di-n-butyl phthalate	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
1,3-Dichlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
1,4-Dichlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
1,2-Dichlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
3,3-Dichlorobenzidine	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
2,4-Dichlorophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Diethyl phthalate	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2,4-Dimethylphenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Dimethyl phthalate	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
4,6-Dinitro-2-methylphenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2,4-Dinitrophenol	EPA 625	P1G3025	30	ND	1	7/30/01	8/3/01	
2,4-Dinitrotoluene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2,6-Dinitrotoluene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Di-n-octyl phthalate	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
1,2-Diphenylhydrazine	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Fluoranthene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Fluorene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Hexachlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Hexachlorobutadiene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Hexachlorocyclopentadiene	EPA 625	P1G3025	30	ND	1	7/30/01	8/3/01	
Hexachloroethane	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Indeno(1,2,3-cd)pyrene	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Isophorone	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Naphthalene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	

Linda Eshelman
Project Manager

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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Nitrobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2-Nitrophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
4-Nitrophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
n-Nitrosodiphenylamine	EPA 625	P1G3025	30	ND	1	7/30/01	8/3/01	
n-Nitroso-di-n-propylamine	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Pentachlorophenol	EPA 625	P1G3025	20	ND	1	7/30/01	8/3/01	
Phenanthrene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Phenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Pyrene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
1,2,4-Trichlorobenzene	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
2,4,6-Trichlorophenol	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
n-Nitrosodimethylamine	EPA 625	P1G3025	10	ND	1	7/30/01	8/3/01	
Surrogate: 2-Fluorophenol (20-120%)				*62.7 %*				
Surrogate: Phenol-d6 (15-115%)				*67.6 %*				
Surrogate: 2,4,6-Tribromophenol (35-135%)				*70.4 %*				
Surrogate: Nitrobenzene-d5 (25-120%)				*82.0 %*				
Surrogate: 2-Fluorobiphenyl (25-145%)				*85.2 %*				
Surrogate: Terphenyl-d14 (40-130%)				*81.8 %*				

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

TOTAL RECOVERABLE METALS

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Antimony	EPA 200.9	P1H0306	0.0040	ND	1	8/3/01	8/5/01	
Beryllium	EPA 200.9	P1H0306	0.00050	**0.00070**	1	8/3/01	8/8/01	
Cadmium	EPA 200.9	P1H0306	0.00050	ND	1	8/3/01	8/5/01	
Calcium	EPA 200.7	P1G3017	2.0	**65**	1	7/30/01	8/1/01	
Chromium	EPA 200.9	P1H0306	0.0040	**0.023**	1	8/3/01	8/10/01	
Copper	EPA 200.9	P1H0306	0.0040	**0.031**	1	8/3/01	8/8/01	
Lead	EPA 200.9	P1H0306	0.0020	**0.017**	1	8/3/01	8/8/01	
Magnesium	EPA 200.7	P1G3017	0.50	**14**	1	7/30/01	8/1/01	
Mercury	EPA 245.1	P1H0327	0.00020	ND	1	8/3/01	8/3/01	
Nickel	EPA 200.9	P1H0306	0.0040	**0.030**	1	8/3/01	8/5/01	
Potassium	EPA 258.1	P1G3017	1.0	**11**	1	7/30/01	8/2/01	
Selenium	EPA 200.9	P1H0306	0.0040	ND	1	8/3/01	8/5/01	
Silver	EPA 200.9	P1H0306	0.0050	ND	1	8/3/01	8/8/01	
Sodium	EPA 273.1	P1G3017	5.0	**6.8**	1	7/30/01	8/2/01	
Thallium	EPA 200.9	P1H0306	0.0020	ND	1	8/3/01	8/5/01	
Zinc	EPA 200.7	P1G3017	0.050	**0.11**	1	7/30/01	8/1/01	

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Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

DISSOLVED METALS

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0499-02 (IND.PARK-COMP - Water)								
Antimony, Dissolved	EPA 200.9	P1H0306	0.0040	ND	1	8/3/01	8/5/01	
Cadmium, Dissolved	EPA 200.9	P1H0306	0.00050	ND	1	8/3/01	8/5/01	
Chromium, Dissolved	EPA 200.9	P1H0306	0.0040	ND	1	8/3/01	8/10/01	
Lead, Dissolved	EPA 200.9	P1H0306	0.0020	ND	1	8/3/01	8/8/01	
Mercury, Dissolved	EPA 245.1	P1H0621	0.00020	ND	1	8/6/01	8/6/01	
Nickel, Dissolved	EPA 200.9	P1H0306	0.0040	ND	1	8/3/01	8/5/01	
Selenium, Dissolved	EPA 200.9	P1H0306	0.0040	ND	1	8/3/01	8/5/01	
Thallium, Dissolved	EPA 200.9	P1H0306	0.0020	ND	1	8/3/01	8/5/01	
Zinc, Dissolved	EPA 200.7	P1H0220	0.050	ND	1	8/2/01	8/6/01	

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INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
			mg/l	mg/l				
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Alkalinity as CaCO3	SM2320B	P1H0611	5.0	**61**	1	8/6/01	8/6/01	
Ammonia-N	EPA 350.3	P1H0211	0.050	**1.2**	1	8/2/01	8/2/01	
			%	%				
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Cation/Anion Balance	Calculation	P1H1313	NA	**50.1**	1	8/13/01	8/13/01	
			mg/l	mg/l				
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Chemical Oxygen Demand	EPA 410.4	P1H0234	40	**140**	2	8/2/01	8/3/01	
Chloride	EPA 300.0	P1G3015	0.50	**5.6**	1	7/30/01	7/30/01	
Fluoride	EPA 300.0	P1G3015	1.0	ND	10	7/30/01	7/30/01	D1
Hardness (CaCO3)	SM2340B	P1G3017	1.0	**220**	1	7/30/01	8/1/01	
Nitrate-N	EPA 300.0	P1G3015	0.10	**1.2**	1	7/30/01	7/30/01	
Nitrate/Nitrite-N	EPA 300.0	P1G3015	0.10	**1.3**	1	7/30/01	7/30/01	
Nitrate/Nitrite-N	EPA 353.2	P1H1316	0.20	**0.98**	4	8/13/01	8/13/01	
Nitrite-N	EPA 300.0	P1G3015	0.10	ND	1	7/30/01	7/30/01	
Orthophosphate	EPA 365.3	P1G3117	0.25	**0.78**	1	7/31/01	7/31/01	
Phosphorous, Dissolved	EPA 365.3	P1H0319	0.050	**0.82**	1	8/3/01	8/3/01	
Phosphorus	EPA 365.3	P1H0319	0.050	**0.83**	1	8/3/01	8/3/01	
			umhos/cm	umhos/cm				
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Specific Conductance	SM2510B	P1G3109	2.0	**150**	1	7/31/01	7/31/01	
			mg/l	mg/l				
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Sulfate	EPA 300.0	P1G3015	0.50	**6.8**	1	7/30/01	7/30/01	
Total Cyanide	SM4500-CN,C-E	P1H0711	0.020	ND	1	8/7/01	8/8/01	
Total Dissolved Solids	SM2540C	P1H0324	20	**160**	1	8/3/01	8/3/01	
Total Suspended Solids	EPA 160.2	P1H0233	20	**100**	1	8/2/01	8/2/01	

The reporting limit for this sample was adjusted by a factor of 2 to account for the applicable preparation factor.

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Maricopa County -Flood Control District
2801 West Durango Street
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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

NITROGEN, ORGANIC (Calculation)

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
ample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Organic Nitrogen	Calculation	P1H0733	0.50	**1.1**	1	8/7/01	8/7/01	

DEL MAR ANALYTICAL, PHOENIX (AZ0426

Linda Eshelman
roject Manager

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Report Number: PKG0499

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Received: 07/30/01

INORGANICS

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Total Kjeldahl Nitrogen	EPA 351.3	C1H0607	0.16	**2.3**	1.6	8/6/01	8/6/01	

The reporting limit for this sample was adjusted by a factor of 1.61 to account for the applicable preparation factor.

DEL MAR ANALYTICAL, COLTON (AZ0062

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Project Manager

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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
ample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Aldrin	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
alpha-BHC	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
eta-BHC	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
elta-BHC	EPA 608	I1H0125	0.20	ND	1.04	8/1/01	8/2/01	
gamma-BHC (Lindane)	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
hlordane	EPA 608	I1H0125	1.0	ND	1.04	8/1/01	8/2/01	
4'-DDD	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
4,4'-DDE	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
4,4'-DDT	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
ieldrin	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
ndosulfan I	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
Endosulfan II	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
Endosulfan sulfate	EPA 608	I1H0125	0.20	ND	1.04	8/1/01	8/2/01	
ndrin	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
ndrin aldehyde	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	V1
Endrin ketone	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
eptachlor	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
eptachlor epoxide	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
ethoxychlor	EPA 608	I1H0125	0.10	ND	1.04	8/1/01	8/2/01	
Toxaphene	EPA 608	I1H0125	5.0	ND	1.04	8/1/01	8/2/01	
urrogate: Tetrachloro-m-xylene (30-120%)				*66.2 %*				
rrogate: Decachlorobiphenyl (30-120%)				*74.7 %*				

Linda Eshelman
roject Manager

DEL MAR ANALYTICAL, IRVINE (AZ0428

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Sampled: 07/29/01
Received: 07/30/01

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Aroclor 1016	EPA 608	I1H0125	1.0	ND	1.04	8/1/01	8/2/01	
Aroclor 1221	EPA 608	I1H0125	1.0	ND	1.04	8/1/01	8/2/01	
Aroclor 1232	EPA 608	I1H0125	1.0	ND	1.04	8/1/01	8/2/01	
Aroclor 1242	EPA 608	I1H0125	1.0	ND	1.04	8/1/01	8/2/01	
Aroclor 1248	EPA 608	I1H0125	1.0	ND	1.04	8/1/01	8/2/01	
Aroclor 1254	EPA 608	I1H0125	1.0	ND	1.04	8/1/01	8/2/01	
Aroclor 1260	EPA 608	I1H0125	1.0	ND	1.04	8/1/01	8/2/01	
Surrogate: Decachlorobiphenyl (30-120%)				*74.7 %*				

DEL MAR ANALYTICAL, IRVINE (AZ0428

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INORGANICS

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0499-01 (IND.PARK-COMP - Water)								
Total Organic Carbon	EPA 415.1	I1G3166	1.0	**34**	1	7/31/01	7/31/01	

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Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Blank Analyzed: 08/01/01 (P1G3025-BLK1)										
Acenaphthene	ND	10	ug/l							
Acenaphthylene	ND	10	ug/l							
Anthracene	ND	10	ug/l							
Benzidine	ND	100	ug/l							
Benz(a)anthracene	ND	10	ug/l							
Benzo(b,k)fluoranthene	ND	10	ug/l							
Benzo(g,h,i)perylene	ND	20	ug/l							
Benzo(a)pyrene	ND	20	ug/l							
Bis(2-chloroethoxy)methane	ND	10	ug/l							
Bis(2-chloroethyl)ether	ND	10	ug/l							
Bis(2-chloroisopropyl)ether	ND	10	ug/l							
Bis(2-ethylhexyl)phthalate	ND	20	ug/l							
4-Bromophenyl phenyl ether	ND	20	ug/l							
Butyl benzyl phthalate	ND	10	ug/l							
2-Chloronaphthalene	ND	10	ug/l							
4-Chloro-3-methylphenol	ND	10	ug/l							
2-Chlorophenol	ND	10	ug/l							
4-Chlorophenyl phenyl ether	ND	10	ug/l							
Chrysene	ND	10	ug/l							
Dibenz(a,h)anthracene	ND	20	ug/l							
Di-n-butyl phthalate	ND	10	ug/l							
1,3-Dichlorobenzene	ND	10	ug/l							
1,4-Dichlorobenzene	ND	10	ug/l							
1,2-Dichlorobenzene	ND	10	ug/l							
3,3-Dichlorobenzidine	ND	20	ug/l							
2,4-Dichlorophenol	ND	10	ug/l							
Diethyl phthalate	ND	10	ug/l							
2,4-Dimethylphenol	ND	10	ug/l							
Dimethyl phthalate	ND	10	ug/l							
4,6-Dinitro-2-methylphenol	ND	10	ug/l							
2,4-Dinitrophenol	ND	30	ug/l							
2,4-Dinitrotoluene	ND	10	ug/l							
2,6-Dinitrotoluene	ND	10	ug/l							
Di-n-octyl phthalate	ND	20	ug/l							
1,2-Diphenylhydrazine	ND	10	ug/l							

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Blank Analyzed: 08/01/01 (P1G3025-BLK1)										
Fluoranthene	ND	10	ug/l							
Fluorene	ND	10	ug/l							
Hexachlorobenzene	ND	10	ug/l							
Hexachlorobutadiene	ND	20	ug/l							
Hexachlorocyclopentadiene	ND	30	ug/l							
Hexachloroethane	ND	10	ug/l							
Indeno(1,2,3-cd)pyrene	ND	20	ug/l							
Isophorone	ND	10	ug/l							
Naphthalene	ND	10	ug/l							
Nitrobenzene	ND	10	ug/l							
2-Nitrophenol	ND	10	ug/l							
4-Nitrophenol	ND	10	ug/l							
n-Nitrosodiphenylamine	ND	30	ug/l							
N-Nitroso-di-n-propylamine	ND	10	ug/l							
Pentachlorophenol	ND	20	ug/l							
Phenanthrene	ND	10	ug/l							
Phenol	ND	10	ug/l							
Pyrene	ND	10	ug/l							
1,2,4-Trichlorobenzene	ND	10	ug/l							
2,4,6-Trichlorophenol	ND	10	ug/l							
N-Nitrosodimethylamine	ND	10	ug/l							
Surrogate: 2-Fluorophenol	*57.4*		*ug/l*	*100*		*57.4*	*20-120*			
Surrogate: Phenol-d6	*61.1*		*ug/l*	*100*		*61.1*	*15-115*			
Surrogate: 2,4,6-Tribromophenol	*79.7*		*ug/l*	*100*		*79.7*	*35-135*			
Surrogate: Nitrobenzene-d5	*44.0*		*ug/l*	*50.0*		*88.0*	*25-120*			
Surrogate: 2-Fluorobiphenyl	*40.0*		*ug/l*	*50.0*		*80.0*	*25-145*			
Surrogate: Terphenyl-d14	*42.5*		*ug/l*	*50.0*		*85.0*	*40-130*			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
LCS Analyzed: 08/01/01 (P1G3025-BS1)										
Acenaphthene	46.6	10	ug/l	50.0		93.2	47-145			
Acenaphthylene	40.4	10	ug/l	50.0		80.8	33-145			
Anthracene	49.4	10	ug/l	50.0		98.8	27-133			
Benzidine	ND	100	ug/l	50.0			0-200			N2
Benz(a)anthracene	49.2	10	ug/l	50.0		98.4	33-143			
Benzo(b,k)fluoranthene	95.1	10	ug/l	100		95.1	24-149			
Benzo(g,h,i)perylene	50.9	20	ug/l	50.0		102	5-219			
Benzo(a)pyrene	45.5	20	ug/l	50.0		91.0	17-163			
Bis(2-chloroethoxy)methane	46.6	10	ug/l	50.0		93.2	33-184			
Bis(2-chloroethyl)ether	41.3	10	ug/l	50.0		82.6	12-158			
Bis(2-chloroisopropyl)ether	40.7	10	ug/l	50.0		81.4	36-166			
Bis(2-ethylhexyl)phthalate	74.2	20	ug/l	50.0		148	8-158			
4-Bromophenyl phenyl ether	49.5	20	ug/l	50.0		99.0	53-127			
Butyl benzyl phthalate	50.1	10	ug/l	50.0		100	5-152			
2-Chloronaphthalene	45.2	10	ug/l	50.0		90.4	60-118			
4-Chloro-3-methylphenol	45.8	10	ug/l	50.0		91.6	22-147			
2-Chlorophenol	41.0	10	ug/l	50.0		82.0	23-134			
4-Chlorophenyl phenyl ether	45.6	10	ug/l	50.0		91.2	25-152			
Chrysene	49.6	10	ug/l	50.0		99.2	17-168			
Dibenz(a,h)anthracene	50.4	20	ug/l	50.0		101	5-227			
Di-n-butyl phthalate	46.3	10	ug/l	50.0		92.6	1-118			
1,3-Dichlorobenzene	36.3	10	ug/l	50.0		72.6	5-172			
1,4-Dichlorobenzene	38.2	10	ug/l	50.0		76.4	20-124			
1,2-Dichlorobenzene	38.5	10	ug/l	50.0		77.0	32-129			
3,3-Dichlorobenzidine	56.0	20	ug/l	50.0		112	5-262			
2,4-Dichlorophenol	49.9	10	ug/l	50.0		99.8	39-135			
Diethyl phthalate	38.0	10	ug/l	50.0		76.0	5-114			
2,4-Dimethylphenol	30.9	10	ug/l	50.0		61.8	32-119			
Dimethyl phthalate	30.5	10	ug/l	50.0		61.0	5-112			
4,6-Dinitro-2-methylphenol	45.1	10	ug/l	50.0		90.2	5-181			
2,4-Dinitrophenol	40.5	30	ug/l	50.0		81.0	5-191			
2,4-Dinitrotoluene	50.0	10	ug/l	50.0		100	39-139			
2,6-Dinitrotoluene	49.0	10	ug/l	50.0		98.0	50-158			
Di-n-octyl phthalate	48.8	20	ug/l	50.0		97.6	4-146			
1,2-Diphenylhydrazine	39.3	10	ug/l	50.0		78.6	0-200			
Fluoranthene	46.6	10	ug/l	50.0		93.2	26-137			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
LCS Analyzed: 08/01/01 (P1G3025-BS1)										
Fluorene	**47.2**	10	ug/l	50.0		94.4	59-121			
Hexachlorobenzene	**47.6**	10	ug/l	50.0		95.2	5-152			
Hexachlorobutadiene	**45.0**	20	ug/l	50.0		90.0	24-116			
Hexachlorocyclopentadiene	ND	30	ug/l	50.0			0-200			N2
Hexachloroethane	**38.7**	10	ug/l	50.0		77.4	40-113			
Indeno(1,2,3-cd)pyrene	**51.9**	20	ug/l	50.0		104	5-171			
Isophorone	**51.0**	10	ug/l	50.0		102	21-196			
Naphthalene	**39.9**	10	ug/l	50.0		79.8	21-133			
Nitrobenzene	**44.0**	10	ug/l	50.0		88.0	35-180			
2-Nitrophenol	**47.3**	10	ug/l	50.0		94.6	29-182			
4-Nitrophenol	**37.8**	10	ug/l	50.0		75.6	0.01-132			
N-Nitrosodiphenylamine	**48.4**	30	ug/l	50.0		96.8	0-200			
n-Nitroso-di-n-propylamine	**39.7**	10	ug/l	50.0		79.4	0.01-230			
Pentachlorophenol	**46.2**	20	ug/l	50.0		92.4	14-176			
Phenanthrene	**50.2**	10	ug/l	50.0		100	54-120			
Phenol	**39.3**	10	ug/l	50.0		78.6	5-112			
Pyrene	**48.3**	10	ug/l	50.0		96.6	52-115			
1,2,4-Trichlorobenzene	**46.1**	10	ug/l	50.0		92.2	44-142			
2,4,6-Trichlorophenol	**95.2**	10	ug/l	100		95.2	37-144			
N-Nitrosodimethylamine	**36.7**	10	ug/l	50.0		73.4	0-200			
Surrogate: 2-Fluorophenol	*66.0*		*ug/l*	*100*		*66.0*	*20-120*			
Surrogate: Phenol-d6	*74.8*		*ug/l*	*100*		*74.8*	*15-115*			
Surrogate: 2,4,6-Tribromophenol	*90.6*		*ug/l*	*100*		*90.6*	*35-135*			
Surrogate: Nitrobenzene-d5	*42.4*		*ug/l*	*50.0*		*84.8*	*25-120*			
Surrogate: 2-Fluorobiphenyl	*45.4*		*ug/l*	*50.0*		*90.8*	*25-145*			
Surrogate: Terphenyl-d14	*44.7*		*ug/l*	*50.0*		*89.4*	*40-130*			
Matrix Spike Analyzed: 08/01/01 (P1G3025-MS1)					**Source: PKG0480-01**					
Acenaphthene	**44.0**	10	ug/l	50.0	ND	88.0	47-145			
Acenaphthylene	**40.3**	10	ug/l	50.0	ND	80.6	33-145			
Anthracene	**46.2**	10	ug/l	50.0	ND	92.4	27-133			
Benzidine	ND	100	ug/l	50.0	ND		0-200			M2,N2
Benz(a)anthracene	**48.1**	10	ug/l	50.0	ND	96.2	33-143			
Benzo(b,k)fluoranthene	**92.2**	10	ug/l	100	ND	92.2	24-149			
Benzo(g,h,i)perylene	**48.8**	20	ug/l	50.0	ND	97.6	5-219			
Benzo(a)pyrene	**43.4**	20	ug/l	50.0	ND	86.8	17-163			
Bis(2-chloroethoxy)methane	**42.5**	10	ug/l	50.0	ND	85.0	33-184			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER
Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Matrix Spike Analyzed: 08/01/01 (P1G3025-MS1)					**Source: PKG0480-01**					
Bis(2-chloroethyl)ether	37.9	10	ug/l	50.0	ND	75.8	12-158			
Bis(2-chloroisopropyl)ether	38.1	10	ug/l	50.0	ND	76.2	36-166			
Bis(2-ethylhexyl)phthalate	122	20	ug/l	50.0	26	192	8-158			N2
4-Bromophenyl phenyl ether	47.5	20	ug/l	50.0	ND	95.0	53-127			
Butyl benzyl phthalate	49.0	10	ug/l	50.0	ND	98.0	5-152			
2-Chloronaphthalene	43.2	10	ug/l	50.0	ND	86.4	60-118			
4-Chloro-3-methylphenol	43.7	10	ug/l	50.0	ND	87.4	22-147			
2-Chlorophenol	38.7	10	ug/l	50.0	ND	77.4	23-134			
4-Chlorophenyl phenyl ether	44.7	10	ug/l	50.0	ND	89.4	25-152			
Chrysene	47.0	10	ug/l	50.0	ND	94.0	17-168			
Dibenz(a,h)anthracene	48.5	20	ug/l	50.0	ND	97.0	5-227			
Di-n-butyl phthalate	43.6	10	ug/l	50.0	ND	87.2	1-118			
1,3-Dichlorobenzene	32.5	10	ug/l	50.0	ND	65.0	5-172			
1,4-Dichlorobenzene	34.1	10	ug/l	50.0	ND	68.2	20-124			
1,2-Dichlorobenzene	35.3	10	ug/l	50.0	ND	70.6	32-129			
3,3-Dichlorobenzidine	55.5	20	ug/l	50.0	ND	111	5-262			
2,4-Dichlorophenol	45.1	10	ug/l	50.0	ND	90.2	39-135			
Diethyl phthalate	35.3	10	ug/l	50.0	ND	70.6	5-114			
2,4-Dimethylphenol	33.6	10	ug/l	50.0	ND	67.2	32-119			
Dimethyl phthalate	25.7	10	ug/l	50.0	ND	51.4	5-112			
4,6-Dinitro-2-methylphenol	47.1	10	ug/l	50.0	ND	94.2	5-181			
2,4-Dinitrophenol	43.6	30	ug/l	50.0	ND	87.2	5-191			
2,4-Dinitrotoluene	46.9	10	ug/l	50.0	ND	93.8	39-139			
2,6-Dinitrotoluene	47.3	10	ug/l	50.0	ND	94.6	50-158			
Di-n-octyl phthalate	44.9	20	ug/l	50.0	ND	89.8	4-146			
1,2-Diphenylhydrazine	38.6	10	ug/l	50.0	ND	77.2	0-200			
Fluoranthene	43.5	10	ug/l	50.0	ND	87.0	26-137			
Fluorene	45.4	10	ug/l	50.0	ND	90.8	59-121			
Hexachlorobenzene	46.0	10	ug/l	50.0	ND	92.0	5-152			
Hexachlorobutadiene	38.0	20	ug/l	50.0	ND	76.0	24-116			
Hexachlorocyclopentadiene	ND	30	ug/l	50.0	ND		0-200			M2,N2
Hexachloroethane	33.6	10	ug/l	50.0	ND	67.2	40-113			
Indeno(1,2,3-cd)pyrene	49.7	20	ug/l	50.0	ND	99.4	5-171			
Isophorone	46.3	10	ug/l	50.0	ND	92.6	21-196			
Naphthalene	36.2	10	ug/l	50.0	ND	72.4	21-133			
Nitrobenzene	41.2	10	ug/l	50.0	ND	82.4	35-180			

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Project Manager

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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER
Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Matrix Spike Analyzed: 08/01/01 (P1G3025-MS1)					**Source: PKG0480-01**					
Nitrophenol	44.4	10	ug/l	50.0	ND	88.8	29-182			
4-Nitrophenol	38.5	10	ug/l	50.0	ND	77.0	0.01-132			
n-Nitrosodiphenylamine	47.3	30	ug/l	50.0	ND	94.6	0-200			
Nitroso-di-n-propylamine	39.2	10	ug/l	50.0	ND	78.4	0.01-230			
ntachlorophenol	45.6	20	ug/l	50.0	ND	91.2	14-176			
Phenanthrene	47.6	10	ug/l	50.0	ND	95.2	54-120			
Phenol	36.3	10	ug/l	50.0	ND	72.6	5-112			
rene	47.2	10	ug/l	50.0	ND	94.4	52-115			
1,2,4-Trichlorobenzene	40.4	10	ug/l	50.0	ND	80.8	44-142			
2,4,6-Trichlorophenol	91.6	10	ug/l	100	ND	91.6	37-144			
Nitrosodimethylamine	35.9	10	ug/l	50.0	ND	71.8	0-200			
rogate: 2-Fluorophenol	*58.4*		*ug/l*	*100*		*58.4*	*20-120*			
Surrogate: Phenol-d6	*68.4*		*ug/l*	*100*		*68.4*	*15-115*			
Surrogate: 2,4,6-Tribromophenol	*82.3*		*ug/l*	*100*		*82.3*	*35-135*			
rogate: Nitrobenzene-d5	*36.8*		*ug/l*	*50.0*		*73.6*	*25-120*			
rogate: 2-Fluorobiphenyl	*41.4*		*ug/l*	*50.0*		*82.8*	*25-145*			
Surrogate: Terphenyl-d14	*41.4*		*ug/l*	*50.0*		*82.8*	*40-130*			
Matrix Spike Dup Analyzed: 08/03/01 (P1G3025-MSD1)					**Source: PKG0480-01**					
enaphthene	45.7	10	ug/l	50.0	ND	91.4	47-145	3.79	20	
cenaphthylene	39.5	10	ug/l	50.0	ND	79.0	33-145	2.01	20	
Anthracene	46.8	10	ug/l	50.0	ND	93.6	27-133	1.29	20	
nzidine	ND	100	ug/l	50.0	ND		0-200		20	M2,N2
nz(a)anthracene	47.5	10	ug/l	50.0	ND	95.0	33-143	1.26	20	
Benzo(b,k)fluoranthene	94.5	10	ug/l	100	ND	94.5	24-149	2.46	20	
Benzo(g,h,i)perylene	51.1	20	ug/l	50.0	ND	102	5-219	4.60	20	
nzo(a)pyrene	44.2	20	ug/l	50.0	ND	88.4	17-163	1.83	20	
s(2-chloroethoxy)methane	44.0	10	ug/l	50.0	ND	88.0	33-184	3.47	20	
Bis(2-chloroethyl)ether	37.4	10	ug/l	50.0	ND	74.8	12-158	1.33	20	
(2-chloroisopropyl)ether	38.1	10	ug/l	50.0	ND	76.2	36-166	0.00	20	
(2-ethylhexyl)phthalate	119	20	ug/l	50.0	26	186	8-158	2.49	20	N2
4-Bromophenyl phenyl ether	46.9	20	ug/l	50.0	ND	93.8	53-127	1.27	20	
Butyl benzyl phthalate	48.2	10	ug/l	50.0	ND	96.4	5-152	1.65	20	
Chloronaphthalene	43.6	10	ug/l	50.0	ND	87.2	60-118	0.922	20	
Chloro-3-methylphenol	45.2	10	ug/l	50.0	ND	90.4	22-147	3.37	20	
2-Chlorophenol	38.1	10	ug/l	50.0	ND	76.2	23-134	1.56	20	
Chlorophenyl phenyl ether	45.8	10	ug/l	50.0	ND	91.6	25-152	2.43	20	

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Project Manager

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Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Matrix Spike Dup Analyzed: 08/03/01 (P1G3025-MSD1)					**Source: PKG0480-01**					
Chrysene	**46.7**	10	ug/l	50.0	ND	93.4	17-168	0.640	20	
Dibenz(a,h)anthracene	**49.8**	20	ug/l	50.0	ND	99.6	5-227	2.64	20	
Di-n-butyl phthalate	**45.8**	10	ug/l	50.0	ND	91.6	1-118	4.92	20	
1,3-Dichlorobenzene	**32.5**	10	ug/l	50.0	ND	65.0	5-172	0.00	20	
1,4-Dichlorobenzene	**33.9**	10	ug/l	50.0	ND	67.8	20-124	0.588	20	
1,2-Dichlorobenzene	**34.3**	10	ug/l	50.0	ND	68.6	32-129	2.87	20	
3,3-Dichlorobenzidine	**55.0**	20	ug/l	50.0	ND	110	5-262	0.905	20	
2,4-Dichlorophenol	**46.5**	10	ug/l	50.0	ND	93.0	39-135	3.06	20	
Diethyl phthalate	**35.9**	10	ug/l	50.0	ND	71.8	5-114	1.69	20	
2,4-Dimethylphenol	**34.1**	10	ug/l	50.0	ND	68.2	32-119	1.48	20	
Dimethyl phthalate	**25.4**	10	ug/l	50.0	ND	50.8	5-112	1.17	20	
4,6-Dinitro-2-methylphenol	**45.4**	10	ug/l	50.0	ND	90.8	5-181	3.68	20	
2,4-Dinitrophenol	**44.9**	30	ug/l	50.0	ND	89.8	5-191	2.94	20	
2,4-Dinitrotoluene	**49.2**	10	ug/l	50.0	ND	98.4	39-139	4.79	20	
2,6-Dinitrotoluene	**48.4**	10	ug/l	50.0	ND	96.8	50-158	2.30	20	
Di-n-octyl phthalate	**46.2**	20	ug/l	50.0	ND	92.4	4-146	2.85	20	
1,2-Diphenylhydrazine	**38.6**	10	ug/l	50.0	ND	77.2	0-200	0.00	200	
Fluoranthene	**44.9**	10	ug/l	50.0	ND	89.8	26-137	3.17	20	
Fluorene	**46.5**	10	ug/l	50.0	ND	93.0	59-121	2.39	20	
Hexachlorobenzene	**45.6**	10	ug/l	50.0	ND	91.2	5-152	0.873	20	
Hexachlorobutadiene	**41.5**	20	ug/l	50.0	ND	83.0	24-116	8.81	20	
Hexachlorocyclopentadiene	ND	30	ug/l	50.0	ND		0-200		200	M2,N2
Hexachloroethane	**33.1**	10	ug/l	50.0	ND	66.2	40-113	1.50	20	
Indeno(1,2,3-cd)pyrene	**51.4**	20	ug/l	50.0	ND	103	5-171	3.36	20	
Isophorone	**47.8**	20	ug/l	50.0	ND	95.6	21-196	3.19	20	
Naphthalene	**40.5**	10	ug/l	50.0	ND	81.0	21-133	11.2	20	
Nitrobenzene	**42.5**	10	ug/l	50.0	ND	85.0	35-180	3.11	20	
2-Nitrophenol	**44.2**	10	ug/l	50.0	ND	88.4	29-182	0.451	20	
4-Nitrophenol	**36.4**	10	ug/l	50.0	ND	72.8	0.01-132	5.61	20	
n-Nitrosodiphenylamine	**46.4**	30	ug/l	50.0	ND	92.8	0-200	1.92	200	
n-Nitroso-di-n-propylamine	**37.6**	10	ug/l	50.0	ND	75.2	0.01-230	4.17	20	
Pentachlorophenol	**45.9**	20	ug/l	50.0	ND	91.8	14-176	0.656	20	
Phenanthrene	**47.6**	10	ug/l	50.0	ND	95.2	54-120	0.00	20	
Phenol	**36.6**	10	ug/l	50.0	ND	73.2	5-112	0.823	20	
Pyrene	**46.0**	10	ug/l	50.0	ND	92.0	52-115	2.58	20	
1,2,4-Trichlorobenzene	**42.1**	10	ug/l	50.0	ND	84.2	44-142	4.12	20	

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3025 Extracted: 07/30/01										
Matrix Spike Dup Analyzed: 08/03/01 (P1G3025-MSD1)					**Source: PKG0480-01**					
2,4,6-Trichlorophenol	**88.8**	10	ug/l	100	ND	88.8	37-144	3.10	20	
n-Nitrosodimethylamine	**34.2**	10	ug/l	50.0	ND	68.4	0-200	4.85	200	
Surrogate: 2-Fluorophenol	*64.4*		*ug/l*	*100*		*64.4*	*20-120*			
Surrogate: Phenol-d6	*68.6*		*ug/l*	*100*		*68.6*	*15-115*			
Surrogate: 2,4,6-Tribromophenol	*80.9*		*ug/l*	*100*		*80.9*	*35-135*			
Surrogate: Nitrobenzene-d5	*38.8*		*ug/l*	*50.0*		*77.6*	*25-120*			
Surrogate: 2-Fluorobiphenyl	*41.4*		*ug/l*	*50.0*		*82.8*	*25-145*			
Surrogate: Terphenyl-d14	*41.4*		*ug/l*	*50.0*		*82.8*	*40-130*			

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Sampled: 07/29/01
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METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3017 Extracted: 07/30/01										
Blank Analyzed: 07/31/01 (P1G3017-BLK1)										
Calcium	ND	2.0	mg/l							
Magnesium	ND	0.50	mg/l							
Potassium	ND	1.0	mg/l							
Sodium	ND	5.0	mg/l							
Zinc	ND	0.050	mg/l							
LCS Analyzed: 07/31/01 (P1G3017-BS1)										
Calcium	**10.5**	2.0	mg/l	10.0		105	85-115			
Magnesium	**10.5**	0.50	mg/l	10.0		105	85-115			
Potassium	**10.8**	1.0	mg/l	10.0		108	85-115			
Sodium	**51.2**	5.0	mg/l	50.0		102	85-115			
Zinc	**1.05**	0.050	mg/l	1.00		105	85-115			
Matrix Spike Analyzed: 07/31/01 (P1G3017-MS1)					**Source: PKG0500-01**					
Calcium	**70.8**	2.0	mg/l	10.0	62	88.0	70-130			
Magnesium	**19.8**	0.50	mg/l	10.0	9.9	99.0	70-130			
Potassium	**11.9**	1.0	mg/l	10.0	1.3	106	85-115			
Sodium	**68.7**	5.0	mg/l	50.0	22	93.4	85-115			
Zinc	**1.02**	0.050	mg/l	1.00	ND	100	70-130			
Matrix Spike Dup Analyzed: 07/31/01 (P1G3017-MSD1)					**Source: PKG0500-01**					
Calcium	**71.5**	2.0	mg/l	10.0	62	95.0	70-130	0.984	20	
Magnesium	**19.9**	0.50	mg/l	10.0	9.9	100	70-130	0.504	20	
Potassium	**12.0**	1.0	mg/l	10.0	1.3	107	85-115	0.837	20	
Sodium	**69.4**	5.0	mg/l	50.0	22	94.8	85-115	1.01	20	
Zinc	**1.03**	0.050	mg/l	1.00	ND	102	70-130	0.976	20	

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Maricopa County -Flood Control District
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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0306 Extracted: 08/03/01										
Blank Analyzed: 08/05/01 (P1H0306-BLK1)										
Antimony	ND	0.0040	mg/l							
Beryllium	ND	0.00050	mg/l							
Cadmium	ND	0.00050	mg/l							
Chromium	ND	0.0040	mg/l							
Copper	ND	0.0040	mg/l							
Lead	ND	0.0020	mg/l							
Nickel	ND	0.0040	mg/l							
Selenium	ND	0.0040	mg/l							
Silver	ND	0.0050	mg/l							
Thallium	ND	0.0020	mg/l							
Blank Analyzed: 08/05/01 (P1H0306-BLK2)										
Antimony	ND	0.0040	mg/l							
Beryllium	ND	0.00050	mg/l							
Cadmium	ND	0.00050	mg/l							
Chromium	ND	0.0040	mg/l							
Copper	ND	0.0040	mg/l							
Lead	ND	0.0020	mg/l							
Nickel	ND	0.0040	mg/l							
Selenium	ND	0.0040	mg/l							
Silver	ND	0.0050	mg/l							
Thallium	ND	0.0020	mg/l							
LCS Analyzed: 08/05/01 (P1H0306-BS1)										
Antimony	**0.0392**	0.0080	mg/l	0.0400		98.0	85-115			
Beryllium	**0.00221**	0.0010	mg/l	0.00200		110	85-115			
Cadmium	**0.00181**	0.0010	mg/l	0.00200		90.5	85-115			
Chromium	**0.0424**	0.0080	mg/l	0.0400		106	85-115			
Copper	**0.0439**	0.0080	mg/l	0.0400		110	85-115			
Lead	**0.0432**	0.0040	mg/l	0.0400		108	85-115			
Nickel	**0.0397**	0.0080	mg/l	0.0400		99.3	85-115			
Selenium	**0.0409**	0.0080	mg/l	0.0400		102	85-115			
Silver	**0.0203**	0.010	mg/l	0.0200		102	85-115			
Thallium	**0.0177**	0.0040	mg/l	0.0200		88.5	85-115			

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Client Project ID: Glendale-NPDES STORMWATER

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Sampled: 07/29/01
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METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0306 Extracted: 08/03/01										
Matrix Spike Analyzed: 08/05/01 (P1H0306-MS1)					**Source: PKG0540-05**					
Antimony	**0.0413**	0.0080	mg/l	0.0400	ND	103	70-130			
Beryllium	**0.00211**	0.0010	mg/l	0.00200	ND	106	70-130			
Cadmium	**0.00216**	0.0010	mg/l	0.00200	ND	92.0	70-130			
Chromium	**0.0458**	0.0080	mg/l	0.0400	ND	110	70-130			
Copper	**0.0454**	0.0080	mg/l	0.0400	ND	94.8	70-130			
Lead	**0.0442**	0.0040	mg/l	0.0400	ND	104	70-130			
Nickel	**0.0370**	0.0080	mg/l	0.0400	ND	89.2	70-130			
Selenium	**0.0325**	0.0080	mg/l	0.0400	ND	81.2	70-130			
Silver	**0.0203**	0.010	mg/l	0.0200	ND	102	70-130			
Thallium	**0.0200**	0.0040	mg/l	0.0200	ND	100	70-130			
Matrix Spike Dup Analyzed: 08/05/01 (P1H0306-MSD1)					**Source: PKG0540-05**					
Antimony	**0.0401**	0.0080	mg/l	0.0400	ND	100	70-130	2.95	20	
Beryllium	**0.00212**	0.0010	mg/l	0.00200	ND	106	70-130	0.473	20	
Cadmium	**0.00195**	0.0010	mg/l	0.00200	ND	81.5	70-130	10.2	20	
Chromium	**0.0455**	0.0080	mg/l	0.0400	ND	109	70-130	0.657	20	
Copper	**0.0542**	0.0080	mg/l	0.0400	ND	117	70-130	17.7	20	
Lead	**0.0430**	0.0040	mg/l	0.0400	ND	101	70-130	2.75	20	
Nickel	**0.0381**	0.0080	mg/l	0.0400	ND	92.0	70-130	2.93	20	
Selenium	**0.0329**	0.0080	mg/l	0.0400	ND	82.3	70-130	1.22	20	
Silver	**0.0204**	0.010	mg/l	0.0200	ND	102	70-130	0.491	20	
Thallium	**0.0200**	0.0040	mg/l	0.0200	ND	100	70-130	0.00	20	
Batch: P1H0327 Extracted: 08/03/01										
Blank Analyzed: 08/03/01 (P1H0327-BLK1)										
Mercury	ND	0.00020	mg/l							

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Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
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METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0327 Extracted: 08/03/01										
LCS Analyzed: 08/03/01 (P1H0327-BS1)										
Mercury	**0.00490**	0.00020	mg/l	0.00500		98.0	85-115			
Matrix Spike Analyzed: 08/03/01 (P1H0327-MS1)					**Source: PKG0493-05**					
Mercury	**0.00472**	0.00020	mg/l	0.00500	ND	94.4	85-115			
Matrix Spike Dup Analyzed: 08/03/01 (P1H0327-MSD1)					**Source: PKG0493-05**					
Mercury	**0.00467**	0.00020	mg/l	0.00500	ND	93.4	85-115	1.06	20	

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Attention: Julie Cox

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Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0220 Extracted: 08/02/01										
Blank Analyzed: 08/03/01 (P1H0220-BLK1)										
Zinc, Dissolved	ND	0.050	mg/l							B4
Blank Analyzed: 08/03/01 (P1H0220-BLK2)										
Zinc, Dissolved	ND	0.050	mg/l							B4
LCS Analyzed: 08/03/01 (P1H0220-BS1)										
Zinc, Dissolved	**1.05**	0.050	mg/l	1.00		105	85-115			
Matrix Spike Analyzed: 08/03/01 (P1H0220-MS1)					**Source: PKH0008-01**					
Zinc, Dissolved	**1.13**	0.050	mg/l	1.00	0.062	107	70-130			
Matrix Spike Dup Analyzed: 08/03/01 (P1H0220-MSD1)					**Source: PKH0008-01**					
Zinc, Dissolved	**1.24**	0.050	mg/l	1.00	0.062	118	70-130	9.28	20	
Batch: P1H0306 Extracted: 08/03/01										
Blank Analyzed: 08/05/01 (P1H0306-BLK1)										
Antimony, Dissolved	ND	0.0040	mg/l							
Cadmium, Dissolved	ND	0.00050	mg/l							
Chromium, Dissolved	ND	0.0040	mg/l							
Lead, Dissolved	ND	0.0020	mg/l							
Nickel, Dissolved	ND	0.0040	mg/l							
Selenium, Dissolved	ND	0.0040	mg/l							
Thallium, Dissolved	ND	0.0020	mg/l							
Blank Analyzed: 08/05/01 (P1H0306-BLK2)										
Antimony, Dissolved	ND	0.0040	mg/l							
Cadmium, Dissolved	ND	0.00050	mg/l							
Chromium, Dissolved	ND	0.0040	mg/l							
Lead, Dissolved	ND	0.0020	mg/l							
Nickel, Dissolved	ND	0.0040	mg/l							
Selenium, Dissolved	ND	0.0040	mg/l							
Thallium, Dissolved	ND	0.0020	mg/l							

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Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0306 Extracted: 08/03/01										
LCS Analyzed: 08/05/01 (P1H0306-BS1)										
Antimony, Dissolved	0.0392	0.0080	mg/l	0.0400		98.0	85-115			
Cadmium, Dissolved	0.00181	0.0010	mg/l	0.00200		90.5	85-115			
Chromium, Dissolved	0.0424	0.0080	mg/l	0.0400		106	85-115			
Lead, Dissolved	0.0432	0.0040	mg/l	0.0400		108	85-115			
Nickel, Dissolved	0.0397	0.0080	mg/l	0.0400		99.3	85-115			
Selenium, Dissolved	0.0409	0.0080	mg/l	0.0400		102	85-115			
Thallium, Dissolved	0.0177	0.0040	mg/l	0.0200		88.5	85-115			
Matrix Spike Analyzed: 08/05/01 (P1H0306-MS1)					**Source: PKG0540-05**					
Antimony, Dissolved	0.0413	0.0080	mg/l	0.0400	ND	103	70-130			
Cadmium, Dissolved	0.00216	0.0010	mg/l	0.00200	ND	92.0	70-130			
Chromium, Dissolved	0.0458	0.0080	mg/l	0.0400	ND	110	70-130			
Lead, Dissolved	0.0442	0.0040	mg/l	0.0400	ND	104	70-130			
Nickel, Dissolved	0.0370	0.0080	mg/l	0.0400	ND	89.2	70-130			
Selenium, Dissolved	0.0325	0.0080	mg/l	0.0400	ND	81.2	70-130			
Thallium, Dissolved	0.0200	0.0040	mg/l	0.0200	ND	100	70-130			
Matrix Spike Dup Analyzed: 08/05/01 (P1H0306-MSD1)					**Source: PKG0540-05**					
Antimony, Dissolved	0.0401	0.0080	mg/l	0.0400	ND	100	70-130	2.95	20	
Cadmium, Dissolved	0.00195	0.0010	mg/l	0.00200	ND	81.5	70-130	10.2	20	
Chromium, Dissolved	0.0455	0.0080	mg/l	0.0400	ND	109	70-130	0.657	20	
Lead, Dissolved	0.0430	0.0040	mg/l	0.0400	ND	101	70-130	2.75	20	
Nickel, Dissolved	0.0381	0.0080	mg/l	0.0400	ND	92.0	70-130	2.93	20	
Selenium, Dissolved	0.0329	0.0080	mg/l	0.0400	ND	82.3	70-130	1.22	20	
Thallium, Dissolved	0.0200	0.0040	mg/l	0.0200	ND	100	70-130	0.00	20	
Batch: P1H0621 Extracted: 08/06/01										
Blank Analyzed: 08/06/01 (P1H0621-BLK1)										
Mercury, Dissolved	ND	0.00020	mg/l							

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DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0621 Extracted: 08/06/01										
Blank Analyzed: 08/06/01 (P1H0621-BLK2)										
Mercury, Dissolved	ND	0.00020	mg/l							
LCS Analyzed: 08/06/01 (P1H0621-BS1)										
Mercury, Dissolved	**0.00505**	0.00020	mg/l	0.00500		101	85-115			
Matrix Spike Analyzed: 08/06/01 (P1H0621-MS1)					**Source: PKG0538-07**					
Mercury, Dissolved	**0.00451**	0.00020	mg/l	0.00500	ND	90.2	85-115			
Matrix Spike Dup Analyzed: 08/06/01 (P1H0621-MSD1)					**Source: PKG0538-07**					
Mercury, Dissolved	**0.00446**	0.00020	mg/l	0.00500	ND	89.2	85-115	1.11	20	

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1G3015 Extracted: 07/30/01										
Blank Analyzed: 07/30/01 (P1G3015-BLK1)										
Chloride	ND	0.50	mg/l							
Fluoride	ND	0.10	mg/l							
Nitrate-N	ND	0.10	mg/l							
Nitrate/Nitrite-N	ND	0.10	mg/l							
Nitrite-N	ND	0.10	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 07/30/01 (P1G3015-BS1)										
Chloride	**4.74**	0.50	mg/l	5.00		94.8	90-110			
Fluoride	**2.32**	0.10	mg/l	2.50		92.8	90-110			
Nitrate-N	**2.37**	0.10	mg/l	2.50		94.8	90-110			
Nitrite-N	**2.44**	0.10	mg/l	2.50		97.6	90-110			
Sulfate	**4.70**	0.50	mg/l	5.00		94.0	90-110			
LCS Dup Analyzed: 07/30/01 (P1G3015-BSD1)										
Chloride	**4.70**	0.50	mg/l	5.00		94.0	90-110	0.847	20	
Fluoride	**2.31**	0.10	mg/l	2.50		92.4	90-110	0.432	20	
Nitrate-N	**2.34**	0.10	mg/l	2.50		93.6	90-110	1.27	20	
Nitrite-N	**2.43**	0.10	mg/l	2.50		97.2	90-110	0.411	20	
Sulfate	**4.64**	0.50	mg/l	5.00		92.8	90-110	1.28	20	
Matrix Spike Analyzed: 07/30/01 (P1G3015-MS1)					**Source: PKG0500-02**					
Chloride	**10.3**	0.50	mg/l	5.00	5.3	100	80-120			
Fluoride	**2.60**	0.10	mg/l	2.50	0.31	91.6	80-120			
Nitrate-N	**3.50**	0.10	mg/l	2.50	1.1	96.0	80-120			
Nitrite-N	**2.37**	0.10	mg/l	2.50	ND	94.8	80-120			
Sulfate	**20.6**	0.50	mg/l	5.00	16	92.0	80-120			

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Batch: P1G3015 Extracted: 07/30/01										
Matrix Spike Dup Analyzed: 07/30/01 (P1G3015-MSD1)					**Source: PKG0500-02**					
Chloride	**10.4**	0.50	mg/l	5.00	5.3	102	80-120	0.966	20	
Fluoride	**2.68**	0.10	mg/l	2.50	0.31	94.8	80-120	3.03	20	
Nitrate-N	**3.53**	0.10	mg/l	2.50	1.1	97.2	80-120	0.853	20	
Nitrite-N	**2.46**	0.10	mg/l	2.50	ND	98.4	80-120	3.73	20	
Sulfate	**20.7**	0.50	mg/l	5.00	16	94.0	80-120	0.484	20	
Batch: P1G3109 Extracted: 07/31/01										
Duplicate Analyzed: 07/31/01 (P1G3109-DUP1)					**Source: PKG0416-01**					
Specific Conductance	**2050**	2.0	umhos/cm		2100			2.41	10	
Duplicate Analyzed: 07/31/01 (P1G3109-DUP2)					**Source: PKG0426-04**					
Specific Conductance	**5440**	2.0	umhos/cm		5400			0.738	10	
Reference Analyzed: 07/31/01 (P1G3109-SRM1)										
Specific Conductance	**1320**	2.0	umhos/cm	1410		93.6	90-110			
Reference Analyzed: 07/31/01 (P1G3109-SRM2)										
Specific Conductance	**1340**	2.0	umhos/cm	1410		95.0	90-110			
Batch: P1G3117 Extracted: 07/31/01										
Blank Analyzed: 07/31/01 (P1G3117-BLK1)										
Orthophosphate	ND	0.050	mg/l							
LCS Analyzed: 07/31/01 (P1G3117-BS1)										
Orthophosphate	**0.496**	0.050	mg/l				80-120			

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Batch: P1G3117 Extracted: 07/31/01										
Matrix Spike Analyzed: 07/31/01 (P1G3117-MS1)					**Source: PKG0499-01**					
Orthophosphate	**3.50**	0.25	mg/l	2.50	0.78	109	75-125			
Matrix Spike Dup Analyzed: 07/31/01 (P1G3117-MSD1)					**Source: PKG0499-01**					
Orthophosphate	**3.52**	0.25	mg/l	2.50	0.78	110	75-125	0.570	20	
Batch: P1H0211 Extracted: 08/02/01										
Blank Analyzed: 08/02/01 (P1H0211-BLK1)										
Ammonia-N	ND	0.050	mg/l							
LCS Analyzed: 08/02/01 (P1H0211-BS1)										
Ammonia-N	**0.490**	0.050	mg/l	0.500		98.0	85-115			
Matrix Spike Analyzed: 08/02/01 (P1H0211-MS1)					**Source: PKG0480-01**					
Ammonia-N	**0.472**	0.050	mg/l	0.500	0.062	82.0	70-130			
Matrix Spike Dup Analyzed: 08/02/01 (P1H0211-MSD1)					**Source: PKG0480-01**					
Ammonia-N	**0.570**	0.050	mg/l	0.500	0.062	102	70-130	18.8	20	
Batch: P1H0233 Extracted: 08/02/01										
Blank Analyzed: 08/02/01 (P1H0233-BLK1)										
Total Suspended Solids	ND	10	mg/l							
Duplicate Analyzed: 08/02/01 (P1H0233-DUP1)					**Source: PKG0480-01**					
Total Suspended Solids	ND	10	mg/l		ND				5	

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Batch: P1H0233 Extracted: 08/02/01										
Duplicate Analyzed: 08/02/01 (P1H0233-DUP2)					**Source: PKG0519-01**					
Total Suspended Solids	**15.0**	10	mg/l		16			6.45	5	R9
Reference Analyzed: 08/02/01 (P1H0233-SRM1)										
Total Suspended Solids	**61.0**	10	mg/l	64.7		94.3	85-107			
Batch: P1H0234 Extracted: 08/02/01										
Blank Analyzed: 08/03/01 (P1H0234-BLK1)										
Chemical Oxygen Demand	ND	20	mg/l							
LCS Analyzed: 08/03/01 (P1H0234-BS1)										
Chemical Oxygen Demand	**212**	20	mg/l	200		106	90-110			
Matrix Spike Analyzed: 08/03/01 (P1H0234-MS1)					**Source: PKG0480-01**					
Chemical Oxygen Demand	**283**	20	mg/l	200	ND	142	65-130			M1
Matrix Spike Dup Analyzed: 08/03/01 (P1H0234-MSD1)					**Source: PKG0480-01**					
Chemical Oxygen Demand	**315**	20	mg/l	200	ND	158	65-130	10.7	20	M1
Batch: P1H0319 Extracted: 08/03/01										
Blank Analyzed: 08/03/01 (P1H0319-BLK1)										
Phosphorous, Dissolved	ND	0.050	mg/l							
Phosphorus	ND	0.050	mg/l							
LCS Analyzed: 08/03/01 (P1H0319-BS1)										
Phosphorous, Dissolved	**0.524**	0.050	mg/l	0.500		105	80-120			
Phosphorus	**0.524**	0.050	mg/l	0.500		105	80-120			

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Batch: P1H0319 Extracted: 08/03/01										
Matrix Spike Analyzed: 08/03/01 (P1H0319-MS1)					**Source: PKG0480-01**					
Phosphorous, Dissolved	**0.537**	0.050	mg/l	0.500	ND	102	80-120			
Phosphorus	**0.537**	0.050	mg/l	0.500	ND	107	75-125			
Matrix Spike Dup Analyzed: 08/03/01 (P1H0319-MSD1)					**Source: PKG0480-01**					
Phosphorous, Dissolved	**0.559**	0.050	mg/l	0.500	ND	107	80-120	4.01	20	
Phosphorus	**0.559**	0.050	mg/l	0.500	ND	112	75-125	4.01	20	
Batch: P1H0324 Extracted: 08/03/01										
Blank Analyzed: 08/03/01 (P1H0324-BLK1)										
Total Dissolved Solids	ND	20	mg/l							
LCS Analyzed: 08/03/01 (P1H0324-BS1)										
Total Dissolved Solids	**392**	20	mg/l	400		98.0	80-115			
Duplicate Analyzed: 08/03/01 (P1H0324-DUP1)					**Source: PKG0499-01**					
Total Dissolved Solids	**160**	20	mg/l		160			0.00	5	
Duplicate Analyzed: 08/03/01 (P1H0324-DUP2)					**Source: PKH0002-04**					
Total Dissolved Solids	**632**	20	mg/l		610			3.54	5	
Batch: P1H0611 Extracted: 08/06/01										
Duplicate Analyzed: 08/06/01 (P1H0611-DUP1)					**Source: PKG0493-02**					
Alkalinity as CaCO3	**195**	5.0	mg/l		200			2.53	20	

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Batch: P1H0611 Extracted: 08/06/01										
Duplicate Analyzed: 08/06/01 (P1H0611-DUP2)					**Source: PKG0500-02**					
Alkalinity as CaCO3	**144**	5.0	mg/l		140			2.82	20	
Reference Analyzed: 08/06/01 (P1H0611-SRM1)										
Alkalinity as CaCO3	**24.0**	5.0	mg/l	23.3		103	89-111			
Batch: P1H0711 Extracted: 08/07/01										
Blank Analyzed: 08/08/01 (P1H0711-BLK1)										
Total Cyanide	ND	0.020	mg/l							
LCS Analyzed: 08/08/01 (P1H0711-BS1)										
Total Cyanide	**0.0906**	0.020	mg/l	0.100		90.6	90-110			
Matrix Spike Analyzed: 08/08/01 (P1H0711-MS1)					**Source: PKG0499-01**					
Total Cyanide	**0.0897**	0.020	mg/l	0.100	ND	89.7	70-130			
Matrix Spike Dup Analyzed: 08/08/01 (P1H0711-MSD1)					**Source: PKG0499-01**					
Total Cyanide	**0.0823**	0.020	mg/l	0.100	ND	82.3	70-130	8.60	20	
Batch: P1H1316 Extracted: 08/13/01										
Blank Analyzed: 08/13/01 (P1H1316-BLK1)										
Nitrate/Nitrite-N	ND	0.050	mg/l							
LCS Analyzed: 08/13/01 (P1H1316-BS1)										
Nitrate/Nitrite-N	**0.985**	0.050	mg/l	1.00		98.5	90-110			

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Batch: P1H1316 Extracted: 08/13/01										
Matrix Spike Analyzed: 08/13/01 (P1H1316-MS1)					**Source: PKG0385-01**					
Nitrate/Nitrite-N	15.2	0.50	mg/l	10.0	5.0	102	80-125			
Matrix Spike Dup Analyzed: 08/13/01 (P1H1316-MSD1)					**Source: PKG0385-01**					
Nitrate/Nitrite-N	14.8	0.50	mg/l	10.0	5.0	98.0	80-125	2.67	20	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C1H0607 Extracted: 08/06/01										
Blank Analyzed: 08/06/01 (C1H0607-BLK1)										
Total Kjeldahl Nitrogen	ND	0.10	mg/l							
LCS Analyzed: 08/06/01 (C1H0607-BS1)										
Total Kjeldahl Nitrogen	**4.28**	0.10	mg/l	5.00		85.6	80-115			Q8
LCS Dup Analyzed: 08/06/01 (C1H0607-BSD1)										
Total Kjeldahl Nitrogen	**4.34**	0.10	mg/l	5.00		86.8	80-115	1.39	15	

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: I1H0125 Extracted: 08/01/01										
Blank Analyzed: 08/02/01 (I1H0125-BLK1)										
Aldrin	ND	0.10	ug/l							
alpha-BHC	ND	0.10	ug/l							
beta-BHC	ND	0.10	ug/l							
delta-BHC	ND	0.20	ug/l							
gamma-BHC (Lindane)	ND	0.10	ug/l							
Chlordane	ND	1.0	ug/l							
4,4'-DDD	ND	0.10	ug/l							
4,4'-DDE	ND	0.10	ug/l							
4,4'-DDT	ND	0.10	ug/l							
Dieldrin	ND	0.10	ug/l							
Endosulfan I	ND	0.10	ug/l							
Endosulfan II	ND	0.10	ug/l							
Endosulfan sulfate	ND	0.20	ug/l							
Endrin	ND	0.10	ug/l							
Endrin aldehyde	ND	0.10	ug/l							
Endrin ketone	ND	0.10	ug/l							
Heptachlor	ND	0.10	ug/l							
Heptachlor epoxide	ND	0.10	ug/l							
Methoxychlor	ND	0.10	ug/l							
Toxaphene	ND	5.0	ug/l							
Surrogate: Tetrachloro-m-xylene	*0.269*		*ug/l*	*0.500*		*53.8*	*30-120*			
Surrogate: Decachlorobiphenyl	*0.439*		*ug/l*	*0.500*		*87.8*	*30-120*			
LCS Analyzed: 08/02/01 (I1H0125-BS1)										
Aldrin	**0.401**	0.10	ug/l	0.500		80.2	42-115			
alpha-BHC	**0.375**	0.10	ug/l	0.500		75.0	37-115			
beta-BHC	**0.440**	0.10	ug/l	0.500		88.0	45-115			
delta-BHC	**0.458**	0.20	ug/l	0.500		91.6	45-130			
gamma-BHC (Lindane)	**0.398**	0.10	ug/l	0.500		79.6	40-115			
4,4'-DDD	**0.482**	0.10	ug/l	0.500		96.4	55-120			
4,4'-DDE	**0.478**	0.10	ug/l	0.500		95.6	50-115			
4,4'-DDT	**0.517**	0.10	ug/l	0.500		103	55-115			
Dieldrin	**0.460**	0.10	ug/l	0.500		92.0	50-115			
Endosulfan I	**0.474**	0.10	ug/l	0.500		94.8	45-115			
Endosulfan II	**0.483**	0.10	ug/l	0.500		96.6	50-115			
Endosulfan sulfate	**0.513**	0.20	ug/l	0.500		103	65-120			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: I1H0125 Extracted: 08/01/01										
LCS Analyzed: 08/02/01 (I1H0125-BS1)										
Endrin	**0.469**	0.10	ug/l	0.500		93.8	45-115			
Endrin aldehyde	**0.543**	0.10	ug/l	0.500		109	45-115			
Endrin ketone	**0.516**	0.10	ug/l	0.500		103	55-140			
Heptachlor	**0.405**	0.10	ug/l	0.500		81.0	35-115			
Heptachlor epoxide	**0.463**	0.10	ug/l	0.500		92.6	40-115			
Methoxychlor	**0.526**	0.10	ug/l	0.500		105	55-120			
Surrogate: Tetrachloro-m-xylene	*0.304*		*ug/l*	*0.500*		*60.8*	*30-120*			
Surrogate: Decachlorobiphenyl	*0.502*		*ug/l*	*0.500*		*100*	*30-120*			
LCS Dup Analyzed: 08/02/01 (I1H0125-BSD1)										
Aldrin	**0.415**	0.10	ug/l	0.500		83.0	42-115	3.43	20	M-NR1a
alpha-BHC	**0.412**	0.10	ug/l	0.500		82.4	37-115	9.40	20	M-NR1a
beta-BHC	**0.457**	0.10	ug/l	0.500		91.4	45-115	3.79	20	M-NR1a
delta-BHC	**0.475**	0.20	ug/l	0.500		95.0	45-130	3.64	20	M-NR1a
gamma-BHC (Lindane)	**0.422**	0.10	ug/l	0.500		84.4	40-115	5.85	20	M-NR1a
4,4'-DDD	**0.478**	0.10	ug/l	0.500		95.6	55-120	0.833	20	M-NR1a
4,4'-DDE	**0.478**	0.10	ug/l	0.500		95.6	50-115	0.00	20	M-NR1a
4,4'-DDT	**0.518**	0.10	ug/l	0.500		104	55-115	0.193	20	M-NR1a
Dieldrin	**0.461**	0.10	ug/l	0.500		92.2	50-115	0.217	20	M-NR1a
Endosulfan I	**0.478**	0.10	ug/l	0.500		95.6	45-115	0.840	20	M-NR1a
Endosulfan II	**0.480**	0.10	ug/l	0.500		96.0	50-115	0.623	20	M-NR1a
Endosulfan sulfate	**0.522**	0.20	ug/l	0.500		104	65-120	1.74	20	M-NR1a
Endrin	**0.471**	0.10	ug/l	0.500		94.2	45-115	0.426	20	M-NR1a
Endrin aldehyde	**0.573**	0.10	ug/l	0.500		115	45-115	5.38	20	M-NR1a
Endrin ketone	**0.516**	0.10	ug/l	0.500		103	55-140	0.00	20	M-NR1a
Heptachlor	**0.427**	0.10	ug/l	0.500		85.4	35-115	5.29	20	M-NR1a
Heptachlor epoxide	**0.470**	0.10	ug/l	0.500		94.0	40-115	1.50	20	M-NR1a
Methoxychlor	**0.528**	0.10	ug/l	0.500		106	55-120	0.380	20	M-NR1a
Surrogate: Tetrachloro-m-xylene	*0.361*		*ug/l*	*0.500*		*72.2*	*30-120*			*M-NR1a*
Surrogate: Decachlorobiphenyl	*0.492*		*ug/l*	*0.500*		*98.4*	*30-120*			*M-NR1a*

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: I1H0125 Extracted: 08/01/01										
Blank Analyzed: 08/03/01 (I1H0125-BLK1)										
Aroclor 1016	ND	1.0	ug/l							
Aroclor 1221	ND	1.0	ug/l							
Aroclor 1232	ND	1.0	ug/l							
Aroclor 1242	ND	1.0	ug/l							
Aroclor 1248	ND	1.0	ug/l							
Aroclor 1254	ND	1.0	ug/l							
Aroclor 1260	ND	1.0	ug/l							
Surrogate: Decachlorobiphenyl	*0.432*		*ug/l*	*0.500*		*86.4*	*30-120*			
LCS Analyzed: 08/03/01 (I1H0125-BS2)										
Aroclor 1016	**3.14**	1.0	ug/l	4.00		78.5	45-115			
Aroclor 1260	**3.87**	1.0	ug/l	4.00		96.8	55-115			
Surrogate: Decachlorobiphenyl	*0.475*		*ug/l*	*0.500*		*95.0*	*30-120*			
LCS Dup Analyzed: 08/03/01 (I1H0125-BSD2)										
Aroclor 1016	**3.09**	1.0	ug/l	4.00		77.2	45-115	1.61	25	M-NR1a
Aroclor 1260	**3.76**	1.0	ug/l	4.00		94.0	55-115	2.88	20	M-NR1a
Surrogate: Decachlorobiphenyl	*0.457*		*ug/l*	*0.500*		*91.4*	*30-120*			*M-NR1a*

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0499

Sampled: 07/29/01
Received: 07/30/01

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: I1G3166 Extracted: 07/31/01										
Blank Analyzed: 07/31/01 (I1G3166-BLK1)										
Total Organic Carbon	ND	1.0	mg/l							
LCS Analyzed: 07/31/01 (I1G3166-BS1)										
Total Organic Carbon	**10.3**	1.0	mg/l	10.0		103	90-110			
Matrix Spike Analyzed: 07/31/01 (I1G3166-MS1)					**Source: IKG0975-02**					
Total Organic Carbon	**10.4**	1.0	mg/l	5.00	6.0	88.0	80-120			
Matrix Spike Dup Analyzed: 07/31/01 (I1G3166-MSD1)					**Source: IKG0975-02**					
Total Organic Carbon	**10.9**	1.0	mg/l	5.00	6.0	98.0	80-120	4.69	20	

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District 2801 West Durango Street Phoenix, AZ 85009 Attention: Julie Cox	Client Project ID: Glendale-NPDES STORMWATER Report Number: PKG0499	Sampled: 07/29/01 Received: 07/30/01

METHOD BLANK/QC DATA

DATA QUALIFIERS AND DEFINITIONS

B4	Target analyte detected in blank at/above method acceptance criteria.
D1	Sample required dilution due to matrix interference. See case narrative.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
N2	See corrective action report.
Q8	Insufficient sample received to meet method QC requirements. QC requirements satisfy ADEQ policies 0154 and 0155.
R9	Sample RPD exceeded the laboratory control limit.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not reported.
RPD	Relative Percent Difference

Linda Eshelman
Project Manager

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CORRECTIVE ACTION REPORT

Department:	GC/MS	Method:	625
Date:	08/06/2001	Matrix:	Water
Batch:	P1G3025		
Sample:	PKG0480-01, PKG0480-03, PKG0484-03, PKG0499-01, PKG0501-01, PKG0502-01, PKG0504-01, PKG0509-01, PKG0510-01, PKG0515-01 – PKG0515-03 & PKG0452-01		

Identification and Definition of Problem:

The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recovered high (192% and 186% respectively) and outside of the 8-158% acceptance limits for Bis-2-ethylhexylphthalate.

Determination of the Cause of the Problem:

The cause of high recoveries could not be determined, but may have been due to matrix interference.

Corrective Action:

The Laboratory Control Sample (LCS) was within acceptance limits for Bis-2-ethylhexylphthalate. Thus validating the batch. All of the associated samples, with the exception of PKG0480-01, were non-detect for Bis-2-ethylhexylphthalate. The MS, MSD and the source sample have been flagged "N2" to indicate the high recoveries.

Elizabeth C. Wueschner: Elizabeth C. Wueschner Date: 08/23/2001
Quality Assurance Manager

Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CORRECTIVE ACTION REPORT

Department:	GC/MS	Method:	625
Date:	08/06/2001	Matrix:	Water
Batch:	P1G3025		
Sample:	PKG0480-01, PKG0480-03, PKG0484-03, PKG0499-01, PKG0501-01, PKG0509-01 & PKG0515-01 – PKG0515-03		

Identification and Definition of Problem:

The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recovered low and outside of acceptance limits for Benzidine and Hexachlorocyclopentadiene. The Laboratory Control Sample appears to be outside of acceptance limits, but is in fact within acceptance criteria which are detect to 200%.

Determination of the Cause of the Problem:

The cause of low recoveries could not be determined, but may have been due to breakdown of the compounds during the extraction process as these compounds are known to be heat and light sensitive.

Corrective Action:

The Laboratory Control Sample (LCS) was within acceptance limits for Benzidine and Hexachlorocyclopentadiene, thus validating the batch. The LCS has been flagged "N2" to indicate that the recoveries appear to be outside of acceptance limits, but in fact are within acceptance limits. The MS and MSD have been flagged "M2" and "N2" to indicate that the recoveries were outside of acceptance limits.

Elizabeth C. Wueschner: Elizabeth C. Wueschner Date: 09/13/2001
Quality Assurance Manager

NEL LABORATORIES
Reno • Las Vegas • Boise
Phoenix • Sacramento

Reno Division
4750 Longley Lane, Suite 106 • Reno, Nevada 89502
775-348-2522 • Fax: 775-348-2546
1-800-368-5221

CLIENT: Del Mar Analytical
9830 S. 51st. St. Ste. B-120
Phoenix, AZ 85044
ATTN: Linda Eshelman

PROJECT NAME: PKG0499-MCFC
PROJECT #: NA

NEL ORDER ID: P0107071

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 7/31/01.

Samples were analyzed as received.

Where applicable we have included the following quality control data:

Method blank - used to demonstrate absence of contamination or interferences in the analytical process.
Laboratory Control Spike (LCS) - used to demonstrate laboratory ability to perform the method within specifications by spiking representative analytes into a clean matrix.
Surrogates - compounds added to each sample to ensure that the method requirements are met for each individual sample.

Should you have any questions or comments, please feel free to contact our Client Services department at (602) 437-0099.

Some QA results have been flagged as follows:

Jl - The batch MS and/or MSD were outside acceptance limits. The LCS was acceptable.

Bob George
Lab Manager

8-14-01
Date

CERTIFICATIONS:

	Reno	Las Vegas
Arizona	AZ0520	AZ0518
California	1707	2002
US Army Corps of Engineers	Certified	Certified
Idaho	Certified	Certified
Montana	Certified	Certified
Nevada L.A.C.S.D.	NV033	NV052

NEL LABORATORIES

CLIENT: Del Mar Analytical
PROJECT ID: PKG0499-MCFC
PROJECT #: NA

CLIENT ID: **PKG0499-01**
DATE SAMPLED: 7/29/01
NEL SAMPLE ID: P0107071-01

TEST: **Metals**
MATRIX: Aqueous

ANALYST: JY

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	DIGESTED	ANALYZED
Arsenic	0.0049	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT:	Del Mar Analytical	CLIENT ID:	**PKG0499-02**
PROJECT ID:	PKG0499-MCFC	DATE SAMPLED:	7/29/01
PROJECT #:	NA	NEL SAMPLE ID:	P0107071-02
TEST:	**Dissolved Metals**		
MATRIX:	Aqueous	ANALYST:	JY

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	DIGESTED	ANALYZED
Arsenic, Dissolved	0.0035	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01
Beryllium, Dissolved	ND	0.0005 mg/L	1	EPA 200.8	8/2/01	8/10/01
Copper, Dissolved	0.011	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01
Silver, Dissolved	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT: Del Mar Analytical
PROJECT ID: PKG0499-MCFC
PROJECT #: NA

CLIENT ID: **Method Blank**
DATE SAMPLED: NA
NEL SAMPLE ID: 0802-1.3-BLK

TEST: **Metals**

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	DIGESTED	ANALYZED
Arsenic	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT:	Del Mar Analytical	CLIENT ID:	**Method Blank**
PROJECT ID:	PKG0499-MCFC	DATE SAMPLED:	NA
PROJECT #:	NA	NEL SAMPLE ID:	0802-1.4-BLK

TEST: **Dissolved Metals**

PARAMETER	RESULT mg/L	REPORTING LIMIT	D. F.	METHOD	DIGESTED	ANALYZED
Arsenic, Dissolved	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01
Beryllium, Dissolved	ND	0.0005 mg/L	1	EPA 200.8	8/2/01	8/10/01
Copper, Dissolved	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01
Silver, Dissolved	ND	0.001 mg/L	1	EPA 200.8	8/2/01	8/10/01

D.F. - Dilution Factor

ND - Not Detected

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NEL LABORATORIES

CLIENT: Del Mar Analytical
PROJECT ID: PKG0499-MCFC
PROJECT #: NA
TEST: **Metals**
MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike Amount	Spike Result	Percent Recovery		Acceptable Range	RPD
Strontium	0802-1.3-LCS	10	10	100		85 - 115	
Strontium	P0107066-01-MS	10	13.2	103		75 - 125	
Strontium	P0107066-01-MSD	10	13.5	106		75 - 125	2.9
Antimony	0802-1.3-LCS	0.005	0.0045	90		85 - 115	
Antimony	P0107066-01-MS	0.005	0.00594	119		75 - 125	
Antimony	P0107066-01-MSD	0.005	0.00587	117		75 - 125	1.2
Arsenic	0802-1.3-LCS	0.01	0.00995	100		85 - 115	
Arsenic	P0107066-01-MS	0.01	0.041	90		75 - 125	
Arsenic	P0107066-01-MSD	0.01	0.0433	113		75 - 125	22.7
Lead	0802-1.3-LCS	0.005	0.00556	111		85 - 115	
Lead	P0107066-01-MS	0.005	0.00545	109		75 - 125	
Lead	P0107066-01-MSD	0.005	0.00925	185	J1	75 - 125	51.7
Selenium	0802-1.3-LCS	0.01	0.0106	106		85 - 115	
Selenium	P0107066-01-MS	0.01	0.0139	113		75 - 125	
Selenium	P0107066-01-MSD	0.01	0.0141	115		75 - 125	1.8
Thallium	0802-1.3-LCS	0.005	0.0052	104		85 - 115	
Thallium	P0107066-01-MS	0.005	0.00554	111		75 - 125	
Thallium	P0107066-01-MSD	0.005	0.00578	116		75 - 125	4.2

ND - Not Detected

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CLIENT: Del Mar Analytical
PROJECT ID: PKG0499-MCFC
PROJECT #: NA

TEST: **Metals**
MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike Amount	Spike Result	Percent Recovery	Acceptable Range	RPD
Arsenic, Dissolved	0802-1.4-LCS	0.1	0.0956	96	85 - 115	
Arsenic, Dissolved	P0107062-02-MS	0.1	0.0997	100	70 - 130	
Arsenic, Dissolved	P0107062-02-MSD	0.1	0.1	100	70 - 130	0.3
Beryllium, Dissolved	0802-1.4-LCS	0.1	0.102	102	85 - 115	
Beryllium, Dissolved	P0107062-02-MS	0.1	0.102	102	70 - 130	
Beryllium, Dissolved	P0107062-02-MSD	0.1	0.102	102	70 - 130	0.
Copper, Dissolved	0802-1.4-LCS	0.05	0.0473	95	85 - 115	
Copper, Dissolved	P0107062-02-MS	0.05	0.0481	96	70 - 130	
Copper, Dissolved	P0107062-02-MSD	0.05	0.0489	98	70 - 130	1.6
Silver, Dissolved	0802-1.4-LCS	0.1	0.107	107	85 - 115	
Silver, Dissolved	P0107062-02-MS	0.1	0.112	112	70 - 130	
Silver, Dissolved	P0107062-02-MSD	0.1	0.113	113	70 - 130	0.9

ND - Not Detected

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TRANSWEST GEOCHEM

August 07, 2001

Linda Eshelman
Del Mar Analytical
9830 S. 51st Street
Suite B-120
Phoenix, AZ 85044

RE: PKG0499
Work Order No.: 0107261

Dear Linda,
Transwest Geochem, Inc. received 1 sample on 7/30/2001 4:53:00 PM for the analyses presented in the following report.

The Case Narrative of this report addresses any Quality Control and/or Quality Assurance issues associated with this Work Order.

If you have any questions regarding these test results, please feel free to call us at (602) 437-0330.

Sincerely,

Michael E. Barber for:

Beth Proffitt
Project Manager

ADHS License No. AZM133/AZ0133

3725 E. Atlanta Ave. • Suite 2 • Phoenix, Arizona 85040 • (602) 437-0330 • 1-800-927-5183 • Fax (602) 437-0660

Client: Del Mar Analytical
Work Order: 0107261
Project Name: PKG0499
Project Number:

Date Printed: 07-Aug-01

CASE NARRATIVE

Transwest Geochem, Inc. uses the methods outlined in the following references:

Code of Federal Regulations, 40CFR, Part 136, Revised July 1995.

Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992 and 19th Edition, 1995.

Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Revised March 1983.

Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, Revised August 1993.

Methods for the Determination of Metals in Environmental Samples, EPA/600/R-94/111, Revised May 1994.

Hach, Water Analysis Handbook, 2nd Edition, 1992.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

Secondary Source QC Sample (LCSV) results may not be reported for all methods and/or analysis dates.

All method blanks, laboratory spikes, and/or matrix spikes met quality control objectives for the parameters associated with this Work Order.

Data qualifiers ("flags") contained within this analytical report have been issued to explain a quality control deficiency, and do not affect the quality (validity) of the data unless noted otherwise in the case narrative.

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TRANSWEST GEOCHEM

Date Printed 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Project Name: PKG0499
Project Number:
Work Order: 0107261
Date Received: 30-Jul-01

Work Order Sample Summary

Client Sample ID	Lab Sample ID	Test Code	Collection Date
PKG0499-01	0107261-01A	EPA420.1	7/29/2001 11:37:00 PM

Date Printed 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Project Name: PKG0499
Project Number:
Work Order: 0107261
Date Received: 30-Jul-01

Definitions

Analytical Spike (AS)	The AS is a known amount of a target analyte added to a sample after it has been distilled, digested, or extracted and is ready for analysis. The AS is generally performed if the MS has failed. It is used to indicate interference that arises from sample distillation, digestion, or extraction as opposed to interference that is innate to the matrix.
Continuing Curve Verification (CCV)	The CCV is also referred to as a curve check. This is a standard analyzed at specified intervals during an analysis. The CCV verifies the stability and accuracy of the calibration curve. There are specific CCV recovery acceptance criteria for each method.
Dilution Factor (DF)	The DF is an indication of how much a sample had to be diluted in order to quantitate it on a standard curve. The DF is indicated in the reported sample result. The sample PQL increases as the dilution increases.
Internal Standard (IS)	The IS is a compound that is similar to the organic compound of interest in terms of chemical composition but is unique in that it is rare in the environment. The same concentration of IS is added to every sample for some organic methods.
Laboratory Control Sample (LCS)	The LCS is also referred to as a blank spike. The LCS is an addition of a known amount of a target analyte (from the same source as calibration standards or spikes) to an aliquot of deionized water or other appropriate clean matrix. The LCS is processed through the entire method procedure in the same manner as samples.
Matrix Spike (MS)	The MS is a known amount of a target analyte added to a sample. The MS is processed through the entire method procedure in the same manner as samples.
Method Blank (MB)	The MB is an aliquot of deionized water or other appropriate clean matrix that is thought to be free of the analyte in question. The MB is processed through the entire extraction or analysis procedure and is used to indicate contamination in the lab.
Method Detection Limit (MDL)	The MDL is the lowest level of detection of which a method is capable.
Practical Quantitation Limit (PQL)	The PQL is the lowest value at which Transwest Geochem can detect an analyte in matrix with a high degree of confidence. The PQL will increase as the DF increases. The PQL is greater than or equal to the MDL.
Relative Percent Difference (RPD)	The RPD is a measure of precision (the ability to obtain the same result on re-analysis of the same sample). It is calculated using the result of a sample, MS, LCS, or LCSV and its associated duplicate result.
Secondary Source QC Sample (LCSV)	The LCSV is also referred to as a second source laboratory control sample. It is the same type of standard as a calibration or spiking standard but is obtained from a different source. The LCSV is an indication of the primary standard quality, method performance, and instrument performance.
Surrogate	A surrogate compound is similar to the organic compound of interest in terms of chemical composition but is unique in that it is rare in the environment. When surrogates are used, they are added to every sample, blank and standard. Surrogate recovery is used as an indication of extraction and/or analytical success.
Trip Blank (TB)	The TB is a portion of deionized water preserved in the same manner as the samples. The TB travels from the lab, to the field, and then back to the lab with the samples from the field. The TB serves as an indication of contamination introduced during sample transportation.

TRANSWEST GEOCHEM

Date Printed 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Work Order: 0107261
Lab ID: 0107261-01
Project Name: PKG0499
Project Number:

Client Sample ID: PKG0499-01
Collection Date: 7/29/2001 11:37:00 PM
Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Test Code	Date Prepared	Date Analyzed	Analyst	Batch ID
Phenolics, Total Recoverable	0.017	0.0050		mg/L	1	EPA420.1	8/3/01	8/6/01	KMB	420.1-8/6/2001

Confidential and Privileged

Date: 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Work Order: 0107261
Project: PKG0499

QC SUMMARY REPORT

Method Blank

Analyte	Result	PQL	Qual	Units	DF	Test Code	Date Prepared	Date Analyzed	Analyst	Batch ID
Phenolics, Total Recoverable	<0.0050	0.0050		mg/L	1	EPA420.1	8/3/01	8/6/01	KMB	420.1-8/6/2001

Date: 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Work Order: 0107261
Project: PKG0499

QC SUMMARY REPORT

Sample Matrix Spike

Analyte	Result	PQL	SPK value	SPK Ref Val	% Rec	Low Limit	High Limit	RPD Ref Val	% RPD	RPD Limit	Qual
Sample ID: **0107221-01ASD**	Batch ID: 420.1-8/6/2001			Test Code: EPA420.1				Date Analyzed: 8/6/01			
Client ID:				Units: mg/L				Date Prepared: 8/3/01			
Phenolics, Total Recoverable	0.1095	0.0050	0.1000	0.007900	102%	80	120	0.1111	1%	20	
Sample ID: **0107221-01AS**	Batch ID: 420.1-8/6/2001			Test Code: EPA420.1				Date Analyzed: 8/6/01			
Client ID:				Units: mg/L				Date Prepared: 8/3/01			
Phenolics, Total Recoverable	0.1111	0.0050	0.1000	0.007900	103%	80	120				

Date: 07-Aug-01

License No. AZM133/AZ0133

CLIENT: Del Mar Analytical
Work Order: 0107261
Project: PKG0499

QC SUMMARY REPORT

Blank Spike (primary source)

Analyte	Result	PQL	SPK value	SPK Ref Val	% Rec	Low Limit	High Limit	RPD Ref Val	% RPD	RPD Limit	Qual
Sample ID: **LCSD**	Batch ID: 420.1-8/6/2001			Test Code: EPA420.1				Date Analyzed: 8/6/01			
				Units: mg/L				Date Prepared: 8/3/01			
Phenolics, Total Recoverable	0.09780	0.0050	0.1000	<0.0050	98%	85	115	0.1125	14%	20	
Sample ID: **LCS**	Batch ID: 420.1-8/6/2001			Test Code: EPA420.1				Date Analyzed: 8/6/01			
				Units: mg/L				Date Prepared: 8/3/01			
Phenolics, Total Recoverable	0.1125	0.0050	0.1000	<0.0050	113%	85	115				

Del Mar Analytical

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0505

Sampled: 07/30/01
Received: 07/30/01
Issued: 08/08/01

CASE NARRATIVE

LABORATORY NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX
PKG0505-01	67TH + OLIVE-GRAB	Water
PKG0505-02	TRIP BLANK	Water

AMPLE RECEIPT: Samples were received intact, on ice, and with chain of custody documentation.

OLDING TIMES: Holding times were met.

RESERVATION: Samples requiring preservation were verified prior to sample analysis.

BSERVATIONS: No significant observations were made.

UBCONTRACTED: Analysis was subcontracted to ES Environmental Services/Severn Trent - 3333 S. Price Road, Chandler, AZ (AZ0021). Results are attached.

A/QC CRITERIA: All analyses met method criteria.

EXPLANATION OF ATA QUALIFIERS: No further explanation of data qualifiers needed.

EL MAR ANALYTICAL , PHOENIX (AZ0426)

Linda Eshelman
roject Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0505

Sampled: 07/30/01
Received: 07/30/01

TOTAL RECOVERABLE OIL & GREASE (EPA 413.2)

Analyte	Method	Batch	Reporting Limit mg/l	Sample Result mg/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0505-01 (67TH + OLIVE-GRAB - Water)								
Oil & Grease	EPA 413.2	P1H0225	1.0	ND	1	8/2/01	8/2/01	

DEL MAR ANALYTICAL, PHOENIX (AZ0426

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0505

Sampled: 07/30/01
Received: 07/30/01

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
ample ID: PKG0505-01 (67TH + OLIVE-GRAB - Water)								
Benzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Bromodichloromethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
romoform	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
romomethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Carbon tetrachloride	EPA 624	P1H0110	2.5	ND	1	7/31/01	7/31/01	
Chlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
ibromochloromethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
hloroethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Chloroform	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
hloromethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
2-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
,3-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,4-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1-Dichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
2-Dichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1-Dichloroethene	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
trans-1,2-Dichloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
2-Dichloropropane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
s-1,3-Dichloropropene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
trans-1,3-Dichloropropene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Ethylbenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Methylene chloride	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
1,2,2-Tetrachloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Tetrachloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Toluene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1-Trichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
,1,2-Trichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Trichloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
richlorofluoromethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
inyl chloride	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
urrogate: Dibromofluoromethane (80-120%)				*110 %*				
Surrogate: Toluene-d8 (80-120%)				*110 %*				
urrogate: 4-Bromofluorobenzene (80-120%)				*95.6 %*				

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0505

Sampled: 07/30/01
Received: 07/30/01

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	Reporting Limit ug/l	Sample Result ug/l	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PKG0505-02 (TRIP BLANK - Water)								
Benzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Bromodichloromethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Bromoform	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Bromomethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Carbon tetrachloride	EPA 624	P1H0110	2.5	ND	1	7/31/01	7/31/01	
Chlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Dibromochloromethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Chloroethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Chloroform	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Chloromethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
1,2-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,3-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,4-Dichlorobenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1-Dichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,2-Dichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1-Dichloroethene	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
trans-1,2-Dichloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,2-Dichloropropane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
cis-1,3-Dichloropropene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
trans-1,3-Dichloropropene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Ethylbenzene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Methylene chloride	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
1,1,2,2-Tetrachloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Tetrachloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Toluene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1,1-Trichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
1,1,2-Trichloroethane	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Trichloroethene	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Trichlorofluoromethane	EPA 624	P1H0110	5.0	ND	1	7/31/01	7/31/01	
Vinyl chloride	EPA 624	P1H0110	2.0	ND	1	7/31/01	7/31/01	
Surrogate: Dibromofluoromethane (80-120%)				*109 %*				
Surrogate: Toluene-d8 (80-120%)				*108 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*96.8 %*				

DEL MAR ANALYTICAL, PHOENIX (AZ0426

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0505

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

TOTAL RECOVERABLE OIL & GREASE (EPA 413.2)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0225 Extracted: 08/02/01										
Blank Analyzed: 08/02/01 (P1H0225-BLK1)										
Oil & Grease	ND	1.0	mg/l							
LCS Analyzed: 08/02/01 (P1H0225-BS1)										
Oil & Grease	12.0	1.0	mg/l	10.0		120	100-130			
LCS Dup Analyzed: 08/02/01 (P1H0225-BSD1)										
Oil & Grease	12.4	1.0	mg/l	10.0		124	100-130	3.28	20	

Linda Eshelman
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Maricopa County -Flood Control District 2801 West Durango Street Phoenix, AZ 85009 Attention: Julie Cox	Client Project ID: Glendale-NPDES STORMWATER Report Number: PKG0505	Sampled: 07/30/01 Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
Blank Analyzed: 07/31/01 (P1H0110-BLK1)										
Benzene	ND	2.0	ug/l							
Bromodichloromethane	ND	2.0	ug/l							
Bromoform	ND	5.0	ug/l							
Bromomethane	ND	5.0	ug/l							
Carbon tetrachloride	ND	2.5	ug/l							
Chlorobenzene	ND	2.0	ug/l							
Dibromochloromethane	ND	2.0	ug/l							
Chloroethane	ND	5.0	ug/l							
Chloroform	ND	2.0	ug/l							
Chloromethane	ND	5.0	ug/l							
1,2-Dichlorobenzene	ND	2.0	ug/l							
1,3-Dichlorobenzene	ND	2.0	ug/l							
1,4-Dichlorobenzene	ND	2.0	ug/l							
1,1-Dichloroethane	ND	2.0	ug/l							
1,2-Dichloroethane	ND	2.0	ug/l							
1,1-Dichloroethene	ND	5.0	ug/l							
trans-1,2-Dichloroethene	ND	2.0	ug/l							
1,2-Dichloropropane	ND	2.0	ug/l							
cis-1,3-Dichloropropene	ND	2.0	ug/l							
trans-1,3-Dichloropropene	ND	2.0	ug/l							
Ethylbenzene	ND	2.0	ug/l							
Methylene chloride	ND	5.0	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	ug/l							
Tetrachloroethene	ND	2.0	ug/l							
Toluene	ND	2.0	ug/l							
1,1,1-Trichloroethane	ND	2.0	ug/l							
1,1,2-Trichloroethane	ND	2.0	ug/l							
Trichloroethene	ND	2.0	ug/l							
Trichlorofluoromethane	ND	5.0	ug/l							
Vinyl chloride	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	*27.1*		*ug/l*	*25.0*		*108*	*80-120*			
Surrogate: Toluene-d8	*27.4*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.2*		*ug/l*	*25.0*		*96.8*	*80-120*			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0505

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
LCS Analyzed: 07/31/01 (P1H0110-BS1)										
Benzene	**27.0**	2.0	ug/l	25.0		108	37-151			
Bromodichloromethane	**24.5**	2.0	ug/l	25.0		98.0	35-155			
Bromoform	**19.8**	5.0	ug/l	25.0		79.2	45-169			
Bromomethane	**28.9**	5.0	ug/l	25.0		116	5-242			
Carbon tetrachloride	**28.9**	2.5	ug/l	25.0		116	70-140			
Chlorobenzene	**26.2**	2.0	ug/l	25.0		105	37-160			
Dibromochloromethane	**21.7**	2.0	ug/l	25.0		86.8	53-149			
Chloroethane	**26.2**	5.0	ug/l	25.0		105	14-230			
Chloroform	**26.5**	2.0	ug/l	25.0		106	51-138			
Chloromethane	**24.4**	5.0	ug/l	25.0		97.6	5-273			
1,2-Dichlorobenzene	**24.0**	2.0	ug/l	25.0		96.0	18-190			
1,3-Dichlorobenzene	**24.8**	2.0	ug/l	25.0		99.2	59-156			
1,4-Dichlorobenzene	**24.9**	2.0	ug/l	25.0		99.6	18-190			
1,1-Dichloroethane	**26.2**	2.0	ug/l	25.0		105	59-155			
1,2-Dichloroethane	**22.1**	2.0	ug/l	25.0		88.4	49-155			
1,1-Dichloroethene	**27.6**	5.0	ug/l	25.0		110	5-234			
trans-1,2-Dichloroethene	**27.5**	2.0	ug/l	25.0		110	54-156			
1,2-Dichloropropane	**24.4**	2.0	ug/l	25.0		97.6	5-210			
cis-1,3-Dichloropropene	**23.2**	2.0	ug/l	25.0		92.8	5-227			
trans-1,3-Dichloropropene	**20.7**	2.0	ug/l	25.0		82.8	17-183			
Ethylbenzene	**26.4**	2.0	ug/l	25.0		106	37-162			
Methylene chloride	**25.0**	5.0	ug/l	25.0		100	5-221			
1,1,2,2-Tetrachloroethane	**16.4**	2.0	ug/l	25.0		65.6	46-157			
Tetrachloroethene	**24.4**	2.0	ug/l	25.0		97.6	64-148			
Toluene	**25.8**	2.0	ug/l	25.0		103	47-150			
1,1,1-Trichloroethane	**27.0**	2.0	ug/l	25.0		108	52-162			
1,1,2-Trichloroethane	**20.7**	2.0	ug/l	25.0		82.8	52-150			
Trichloroethene	**24.2**	2.0	ug/l	25.0		96.8	71-157			
Trichlorofluoromethane	**29.1**	5.0	ug/l	25.0		116	17-181			
Vinyl chloride	**27.2**	2.0	ug/l	25.0		109	5-251			
Surrogate: Dibromofluoromethane	*27.4*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Toluene-d8	*27.2*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.4*		*ug/l*	*25.0*		*97.6*	*80-120*			

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Project Manager

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Maricopa County -Flood Control District 2801 West Durango Street Phoenix, AZ 85009 Attention: Julie Cox	Client Project ID: Glendale-NPDES STORMWATER Report Number: PKG0505	Sampled: 07/30/01 Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
LCS Dup Analyzed: 07/31/01 (P1H0110-BSD1)										
Benzene	**26.7**	2.0	ug/l	25.0		107	37-151	1.12	20	
Bromodichloromethane	**24.7**	2.0	ug/l	25.0		98.8	35-155	0.813	20	
Bromoform	**19.7**	5.0	ug/l	25.0		78.8	45-169	0.506	20	
Bromomethane	**28.8**	5.0	ug/l	25.0		115	5-242	0.347	20	
Carbon tetrachloride	**28.4**	2.5	ug/l	25.0		114	70-140	1.75	20	
Chlorobenzene	**26.2**	2.0	ug/l	25.0		105	37-160	0.00	20	
Dibromochloromethane	**22.0**	2.0	ug/l	25.0		88.0	53-149	1.37	20	
Chloroethane	**26.3**	5.0	ug/l	25.0		105	14-230	0.381	20	
Chloroform	**26.2**	2.0	ug/l	25.0		105	51-138	1.14	20	
Chloromethane	**24.7**	5.0	ug/l	25.0		98.8	5-273	1.22	20	
1,2-Dichlorobenzene	**24.1**	2.0	ug/l	25.0		96.4	18-190	0.416	20	
1,3-Dichlorobenzene	**24.9**	2.0	ug/l	25.0		99.6	59-156	0.402	20	
1,4-Dichlorobenzene	**25.0**	2.0	ug/l	25.0		100	18-190	0.401	20	
1,1-Dichloroethane	**25.6**	2.0	ug/l	25.0		102	59-155	2.32	20	
1,2-Dichloroethane	**22.2**	2.0	ug/l	25.0		88.8	49-155	0.451	20	
1,1-Dichloroethene	**27.6**	5.0	ug/l	25.0		110	5-234	0.00	20	
trans-1,2-Dichloroethene	**27.4**	2.0	ug/l	25.0		110	54-156	0.364	20	
1,2-Dichloropropane	**24.7**	2.0	ug/l	25.0		98.8	5-210	1.22	20	
cis-1,3-Dichloropropene	**23.1**	2.0	ug/l	25.0		92.4	5-227	0.432	20	
trans-1,3-Dichloropropene	**20.2**	2.0	ug/l	25.0		80.8	17-183	2.44	20	
Ethylbenzene	**26.4**	2.0	ug/l	25.0		106	37-162	0.00	20	
Methylene chloride	**24.8**	5.0	ug/l	25.0		99.2	5-221	0.803	20	
1,1,2,2-Tetrachloroethane	**16.3**	2.0	ug/l	25.0		65.2	46-157	0.612	20	
Tetrachloroethene	**24.7**	2.0	ug/l	25.0		98.8	64-148	1.22	20	
Toluene	**25.7**	2.0	ug/l	25.0		103	47-150	0.388	20	
1,1,1-Trichloroethane	**26.8**	2.0	ug/l	25.0		107	52-162	0.743	20	
1,1,2-Trichloroethane	**21.3**	2.0	ug/l	25.0		85.2	52-150	2.86	20	
Trichloroethene	**24.8**	2.0	ug/l	25.0		99.2	71-157	2.45	20	
Trichlorofluoromethane	**27.1**	5.0	ug/l	25.0		108	17-181	7.12	20	
Vinyl chloride	**27.6**	2.0	ug/l	25.0		110	5-251	1.46	20	
Surrogate: Dibromofluoromethane	*27.4*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Toluene-d8	*27.2*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.6*		*ug/l*	*25.0*		*98.4*	*80-120*			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0505

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
Matrix Spike Analyzed: 08/01/01 (P1H0110-MS1)					**Source: PKG0542-03**					
Benzene	26.2	2.0	ug/l	25.0	ND	105	37-151			
Bromodichloromethane	23.0	2.0	ug/l	25.0	ND	92.0	35-155			
Bromoform	14.4	5.0	ug/l	25.0	ND	57.6	45-169			
Bromomethane	19.6	5.0	ug/l	25.0	ND	78.4	5-242			
Carbon tetrachloride	28.9	2.5	ug/l	25.0	ND	116	70-140			
Chlorobenzene	25.5	2.0	ug/l	25.0	ND	102	37-160			
Dibromochloromethane	18.3	2.0	ug/l	25.0	ND	73.2	53-149			
Chloroethane	21.0	5.0	ug/l	25.0	ND	84.0	14-230			
Chloroform	26.4	2.0	ug/l	25.0	ND	106	51-138			
Chloromethane	13.9	5.0	ug/l	25.0	ND	55.6	5-273			
1,2-Dichlorobenzene	21.8	2.0	ug/l	25.0	ND	87.2	18-190			
1,3-Dichlorobenzene	23.7	2.0	ug/l	25.0	ND	94.8	59-156			
1,4-Dichlorobenzene	23.4	2.0	ug/l	25.0	ND	93.6	18-190			
1,1-Dichloroethane	25.1	2.0	ug/l	25.0	ND	100	59-155			
1,2-Dichloroethane	20.6	2.0	ug/l	25.0	ND	82.4	49-155			
1,1-Dichloroethene	22.1	5.0	ug/l	25.0	ND	88.4	5-234			
trans-1,2-Dichloroethene	23.2	2.0	ug/l	25.0	ND	92.8	54-156			
1,2-Dichloropropane	23.1	2.0	ug/l	25.0	ND	92.4	5-210			
cis-1,3-Dichloropropene	19.0	2.0	ug/l	25.0	ND	76.0	5-227			
trans-1,3-Dichloropropene	16.2	2.0	ug/l	25.0	ND	64.8	17-183			
Ethylbenzene	28.2	2.0	ug/l	25.0	ND	113	37-162			
Methylene chloride	21.9	5.0	ug/l	25.0	ND	87.6	5-221			
1,1,2,2-Tetrachloroethane	13.8	2.0	ug/l	25.0	ND	55.2	46-157			
Tetrachloroethene	24.0	2.0	ug/l	25.0	ND	96.0	64-148			
Toluene	39.7	2.0	ug/l	25.0	13	107	47-150			
1,1,1-Trichloroethane	27.0	2.0	ug/l	25.0	ND	108	52-162			
1,1,2-Trichloroethane	18.5	2.0	ug/l	25.0	ND	74.0	52-150			
Trichloroethene	23.8	2.0	ug/l	25.0	ND	95.2	71-157			
Trichlorofluoromethane	28.2	5.0	ug/l	25.0	ND	113	17-181			
Vinyl chloride	19.0	2.0	ug/l	25.0	ND	76.0	5-251			
Surrogate: Dibromofluoromethane	*27.9*		*ug/l*	*25.0*		*112*	*80-120*			
Surrogate: Toluene-d8	*27.4*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.0*		*ug/l*	*25.0*		*96.0*	*80-120*			

Linda Eshelman
Project Manager

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Maricopa County -Flood Control District
2801 West Durango Street
Phoenix, AZ 85009
Attention: Julie Cox

Client Project ID: Glendale-NPDES STORMWATER

Report Number: PKG0505

Sampled: 07/30/01
Received: 07/30/01

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P1H0110 Extracted: 07/31/01										
Matrix Spike Dup Analyzed: 08/01/01 (P1H0110-MSD1)					**Source: PKG0542-03**					
Benzene	**25.7**	2.0	ug/l	25.0	ND	103	37-151	1.93	20	
Bromodichloromethane	**22.7**	2.0	ug/l	25.0	ND	90.8	35-155	1.31	20	
Bromoform	**14.7**	5.0	ug/l	25.0	ND	58.8	45-169	2.06	20	
Bromomethane	**19.2**	5.0	ug/l	25.0	ND	76.8	5-242	2.06	20	
Carbon tetrachloride	**28.2**	2.5	ug/l	25.0	ND	113	70-140	2.45	20	
Chlorobenzene	**25.2**	2.0	ug/l	25.0	ND	101	37-160	1.18	20	
Dibromochloromethane	**18.3**	2.0	ug/l	25.0	ND	73.2	53-149	0.00	20	
Chloroethane	**20.9**	5.0	ug/l	25.0	ND	83.6	14-230	0.477	20	
Chloroform	**25.9**	2.0	ug/l	25.0	ND	104	51-138	1.91	20	
Chloromethane	**13.6**	5.0	ug/l	25.0	ND	54.4	5-273	2.18	20	
1,2-Dichlorobenzene	**21.9**	2.0	ug/l	25.0	ND	87.6	18-190	0.458	20	
1,3-Dichlorobenzene	**23.7**	2.0	ug/l	25.0	ND	94.8	59-156	0.00	20	
1,4-Dichlorobenzene	**23.5**	2.0	ug/l	25.0	ND	94.0	18-190	0.426	20	
1,1-Dichloroethane	**24.8**	2.0	ug/l	25.0	ND	99.2	59-155	1.20	20	
1,2-Dichloroethane	**20.4**	2.0	ug/l	25.0	ND	81.6	49-155	0.976	20	
1,1-Dichloroethene	**22.3**	5.0	ug/l	25.0	ND	89.2	5-234	0.901	20	
trans-1,2-Dichloroethene	**23.5**	2.0	ug/l	25.0	ND	94.0	54-156	1.28	20	
1,2-Dichloropropane	**23.0**	2.0	ug/l	25.0	ND	92.0	5-210	0.434	20	
cis-1,3-Dichloropropene	**19.1**	2.0	ug/l	25.0	ND	76.4	5-227	0.525	20	
trans-1,3-Dichloropropene	**16.6**	2.0	ug/l	25.0	ND	66.4	17-183	2.44	20	
Ethylbenzene	**28.0**	2.0	ug/l	25.0	ND	112	37-162	0.712	20	
Methylene chloride	**21.4**	5.0	ug/l	25.0	ND	85.6	5-221	2.31	20	
1,1,2,2-Tetrachloroethane	**14.1**	2.0	ug/l	25.0	ND	56.4	46-157	2.15	20	
Tetrachloroethene	**23.7**	2.0	ug/l	25.0	ND	94.8	64-148	1.26	20	
Toluene	**38.6**	2.0	ug/l	25.0	13	102	47-150	2.81	20	
1,1,1-Trichloroethane	**26.4**	2.0	ug/l	25.0	ND	106	52-162	2.25	20	
1,1,2-Trichloroethane	**18.9**	2.0	ug/l	25.0	ND	75.6	52-150	2.14	20	
Trichloroethene	**23.5**	2.0	ug/l	25.0	ND	94.0	71-157	1.27	20	
Trichlorofluoromethane	**27.2**	5.0	ug/l	25.0	ND	109	17-181	3.61	20	
Vinyl chloride	**18.7**	2.0	ug/l	25.0	ND	74.8	5-251	1.59	20	
Surrogate: Dibromofluoromethane	*27.2*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: Toluene-d8	*27.3*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.6*		*ug/l*	*25.0*		*98.4*	*80-120*			

Linda Eshelman
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

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7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9589
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

Maricopa County -Flood Control District 2801 West Durango Street Phoenix, AZ 85009 Attention: Julie Cox	Client Project ID: Glendale-NPDES STORMWATER Report Number: PKG0505	Sampled: 07/30/01 Received: 07/30/01

METHOD BLANK/QC DATA

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit

NR Not reported.

RPD Relative Percent Difference

Linda Eshelman
Project Manager

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SEVERN TRENT SERVICES

Se\ .rn Trent Services

3333 S. Old Price Road Chandler, Arizona 85248 Tel: (480) 899-0191 Fax: (480) 899-0349
3788 HWY 87 Pine, Arizona 85544 Tel: (520) 476-4189 Fax: (520) 476-4230

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044

Attention: Linda Eshelman.

Report Date: August 9, 2001
Date/Time Received: 07/30/01 1022
Project Identification: Glendale- FCD
Sample Description: Stormwater
Purchase Order Number:

LAB RESULTS

Analytical Method	Parameter Description	Sample Identification	Sample Date / Time	Analysis Date/Time	Lab Identification	Reporting Limit	Analytical Results	Units
SM9221E	Fecal Coliform by MTF	67th & Olive- Grab	07/30/01 0215	07/30/01 0800	C01-2040	1	9000	MPN/100rnl
SM9221F	E. Coli - MPN			07/30/01 0800		1	9000	MPN/100rnl
SM9230B	Fecal Streptococcus by MTF	67th & Olive- Grab	07/30/01 0215	07/30/01 0810	C01-2041	1	22000	MPN/100rnl

Analytes reported as N.D. were not present above the stated limit of detection.
SEVERN TRENT ENVIRONMENTAL SERVICES, Chandler - ADHS Licensure AZ0613

Tamara M. Bresette
Project Manager

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3788 HWY 87 Pine, Arizona 85544 Tel: (520) 476-4189 Fax: (520) 476-4230

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044

Attention: Linda Eshelman

Report Date: August 9, 2001
Date/Time Received: 07/30/01 1430
Project Identification: PKG0505-MCFC
Sample Description: Water
Purchase Order Number:

LAB RESULTS

Analytical Method	Parameter Description	Sample Identification	Sample Date / Time	Analysis Date/Time	Lab Identification	Reporting Limit	Analytical Results	Units
405.1	Biochemical Oxygen Demand	PKG0505-01	07/30/01 0215	07/30/01 1830	C01-2064	3	*14	mg/L

* See attached QA/QC report.
Analytes reported as N.D. were not present above the stated limit of detection.
SEVERN TRENT ENVIRONMENTAL SERVICES, Chandler - ADHS Licensure AZ0613

Tamara M. Bresette
Project Manager

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402 N. Neely Street Gilbert, Arizona 85233 Tel: (480) 926-3761 Fax: (480) 926-3868

Del Mar Analytical
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044

Attention: Linda Eshelman

Report Date: Aug 13, 2001

Project Identification: PKG0505-MCFC
Matrix: Water
Anaylsis Date: 07/18/01

BOD QUALITY CONTROL REPORT

Analytical Method	Laboratory ID	Blank Result mg/L 0.0-0.2	Spike Conc. mg/L 356-436mg/L	LCS Analytical Result mg/L	Percent Recovery	Sample Duplicates Analytical Result mg/L	Sample Duplicates Analytical Result mg/l	Relative Percent Difference		QC Limits
405.1	Laboratory Control Sample (LCS)	0.00	396	447	113%	451	443	1.8%	**	90-110%
405.1	Seeded Control uptake in sample					0.54	0.54	0.0%	*	0.6-1.0
405.1	C01-2064					14	14	0.0%		0-10%

** Seeded recovery exceeds QC limits
* Seeded control exceeded QC limits.
SEVERN TRENT ENVIRONMENTAL SERVICES, Chandler - ADHS Licensure AZ0613

Tamara M. Bresette
Project Manager

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Chain of Custody Forms

U.S. GEOLOGICAL SURVEY, WRD, SURFACE-WATER QUALITY FIELD NOTES

BQA-1 3/92 (3rd printing, 1st ed.)

Proj. Name, No. MARICOPA URBAN - 470416800 Date JULY 29, 2001

Station BUTLER Sta.No. 333346112104501

Sampled By FOSSUM, WILSON, DUET Mean Time 2315 SMS Cntrl. No.

Record No. 00100550 Sample Purpose (71999) :

SAMPLES COLLECTED

Nutrients ☒ TOC ☐
Major Ions ☐ DOC ☐
SOC ☐ Vol. Filt. ____ mL
BOD ☐ Turbidity ☐
COD ☒ ☐
☐

ORGANICS / TR. ELEMENTS
Pesticide ☐ Unfiltered ☒
VOC ☐ Filtered ☐
BNA ☐ Suspended ☐
☐ Bottom ☐

Sediment Conc. ☐
Sediment Size ☐
Sed. Bot. Material ☐
Sand Split/Break ☐
Radiochemical ☐
Isotope ☐
☐

FIELD MEASUREMENTS

					R	F	
Q. Inst. (00061)	4.68	cfs	meas.	Alkalinity (00419/39086)	23	16	mg/L
Gage Ht (00065)	0.28	ft.	rating est.	Bicarbonate (00450/00453)	28	19.5	mg/L
Temp. Water (00010)	—	°C		Carbonate (00447/00452)	0	0	mg/L
Temp. Air (00020)	—	°C		Hydroxide (—)	—		mg/L
pH (00400)	—	units		E. Coli (31633)	—		col./100 mL; Rmk
Sp. Cond. (00095)	—	µS/cm 25 °C		FC (31625)	—		col./100 mL; Rmk
Dis. Oxy. (00300)	—	mg/L		FS (31673)	—		col./100 mL; Rmk
DO Sat. (00301)	—	%		Other:			
Bar. Press. (00025)	—	mm Hg					

SAMPLING CONDITIONS

Location: Wading, cable, ice, boat, bridge, upstr., downstr., side bridge @ ft mile, above, below gage, and

Sampling site: Pool Riffle Open Channel Braided Backwater Sampler Type AUTO-SIGMA

Sample Method: EWI EDI OTHER AUTO SAMPLER Sampler ID

Nozzle size 3/8" Nozzle Made of TEFLON Bottle type, size 4L - GLASS

Sample Split: Churn Cone Other Made of TEFLON

LB ____ RB ____ Stream Width ____ Sampling Pts. CENTROID OF FLOW

Bottom: Bedrock Rock Cobble Gravel Sand Mud Concrete Other

Stage Conditions:
A Not Determined
4 Stable, low
9 Stable, normal
5 Falling
6 Stable, high
7 Peak
8 Rising

LABORATORY SCHEDULES

Lab Schedules Req. (or copy of lab request form attached ☒)

Sch. 3134

Lab Codes Add (A) Delete (D) :

3072(D), 3074(D)

Hydrologic Event: 9 Routine samp. A Spg. breakup B Ice Cover
1 Drought 2 Spill 3 Reg. Flow 4 Snowmelt 7 Flood
Other J-STORM Ice Thickness ____ Ice cover ____

Stream color(s): brown green blue gray other clear

Stream Mixing: Excellent Good Fair Poor Clarity/Turbidity:

Weather: Clear Partly Cloudy Cloudy Light Medium Heavy Snow Rain
Calm Light Breeze Very Gusty Windy Very Cold Warm Hot Other

Observations:
(Codes: 0-none 1-mild 2-moderate 3-serious 4-extreme)
(option: LEAVE BLANK IF NONE)

Floating debris	(01345) :	
Floating garbage	(01320) :	
Floating algae mats	(01325) :	
Fish kill	(01340) :	
Detergent suds	(01305) :	
Turbidity	(01350) :	
Atms. Odor	(01330) :	
Oil-grease	(01300) :	

Sampling		GHT
Start Time		
Mean Time =		
End Time		

Other Observations

81395 (MGD) = 0.031
82381 (TOTAL PRECIP) = 0.72 inches
00129 (MAX5) = 1.80 inches/hour
00135 (STORM LENGTH) = 275 minutes = 4.58 hours
00132 (DRY DAYS) = 4 days

(Cont. p. 3,4)

Checked by Date

TEMPERATURE Lab Tested Thermometer used? ☐ Yes ☒ No If NO, explain in remarks

Thermometer Checked w/ASTM within ± 0.5 °C; Date

AMPULE LOT NUMBERS: nitric acid _____ mercuric chloride _____ nitric acid/potassium dichromate

pH

Mtr W-no. W-495251 METER Make/Model CORNING CHECKMATE 90

electrode no. electrode type

pH Buffer	pH Buffer Temp °C	Initial Reading	Adj. Reading	Remarks
7.00	29.0	7.00	7.00	OK
10.01	29.0	10.01	10.01	OK
__.__				
__.__				

☒ unfiltered sample ☐ filtered sample

Temp correction factors for buffers applied? ☒ YES ☐ NO

stirrer used? ☐ YES ☒ NO

If yes, ☐ magnetic stirrer ☐ manually stirred

pH subsample from or pH measurement location : Churn sample bottle (single point at) ____ sta ____ depth vertical avg of ____ points

x-sec average of ____ points

Sample Temp = — °C

FIELD pH = — USE :

SPECIFIC CONDUCTANCE

Mtr W-no. W-495251 METER Make/Model CORNING CHECKMATE 90

probe no.

standard value	Temp Std °C	Initial Reading	Adj. Reading	Remarks
0	29.0	0	0	OK
1413 µS	29.0	1413 µS	1413 µS	OK

correction factor applied? ☐ YES ☒ NO

☒ auto temp compensated meter

☐ manual temp compensated meter

corr. factor = _____

SC subsample from or SC measurement location : Churn sample bottle (single point at) ____ sta ____ depth vertical avg of ____ points

x-sec avg of ____ points

FIELD CONDUCTANCE = — USE :

DISSOLVED OXYGEN W-no. _____ METER Make/Model YSI-55

D.O. measurement location or D.O. subsample from : (single point at) ____ sta ____ depth vertical avg of ____ points x-sec avg of ____ points

BOD bottle

Calibration :

☒ Air Calibration in Water ☐ Air Calibration Chamber in Air

☐ Air-Saturation Deionized Water ☐ Calibration by Winkler Titration (attach Supplementary Winkler page)

D.O. Zero Check (using zero D.O. solution) ☐ YES ☒ NO

Thermister Check ☐ YES ☒ NO

BAR. PRESS — mm Hg; (mm = in. X 25.4)

Salinity Corr. Factor — H_2O Temp. — °C

Chart D.O. Sat. — mg/L stirrer used? ☐ YES ☒ NO if yes, ☐ magnetic stirrer ☐ manually stirred

Meter D.O. Sat. — mg/L; Adjusted to _____ (if corr. factor applicable)

DISSOLVED OXYGEN IN STREAM = —

QUALITY ASSURANCE SAMPLES

Were quality assurance samples collected? ☐ YES ☒ NO If YES indicate type(s) :

	Organic-free	DI	water from sampling site
Replicate	☐	☐	☐
Spike	☐	☐	☐
Field Blank	☐	☐	Supplementary page w/additional QA sample info attached ☐
Trip Blank	☐	☐	

Other ☐ Indicate Type(s) :

Calibration Notes and Remarks

USED INTERNAL THERMISTOR IN CORNING METER

ALKALINITY

pH	△ pH	Vol acid DC or mL	△Vol acid DC or mL	△ pH / △ Vol acid
RAW				
6.83		0		
5.23	1.60	100	100	.016
5.16	.07	105	5	.014
4.96	.20	110	5	.04
4.69	.27	115	5	.054
4.52	.17	120	5	.034
4.38	.14	125	5	.028
4.24	.14	130	5	.028
4.18	.06	135	5	.012
4.12	.06	140	5	.012
4.06	.06	145	5	.012
4.00	.06	150	5	.012
FILTERED				
7.24		0		
5.23	2.01	65	65	.031
5.06	.17	70	5	.034
4.87	.19	75	5	.038
4.63	.24	80	5	.048
4.46	.17	85	5	.034
4.31	.15	90	5	.03
4.20	.11	95	5	.022
4.11	.09	100	5	.018
4.02	.09	105	5	.018
3.93	.09	110	5	.018

Acid: 1.60 N (0.1600 N) 0.01639N OTHER _____

Acid Lot No. : A1019 EXP. 7/2

Sample Volume : 50 mL

☒ Filtered ☒ Unfiltered

Sample stirred : ☒ magnetically ☐ manually

pH: Start _____ End _____

	R	F
DC (Digital Counts) or Vol. titrated at End Point near pH 8.3 :	0	0
Digital Counts or Vol. titrated at End Point near pH 4.5 :	115	80

☒ Incremental Equivalence ☐ Fixed End Point ☐ Gran Titration

Date JULY 30 Time 0600

CALCULATIONS :

$$CO_3^{-2} = A \times \frac{F_1}{\text{mL sample}} \times CF \ *$$

$$HCO_3^{-1} = [B - 2(A)] \times \frac{F_2}{\text{mL sample}} \times CF; \ *$$

$$\text{ALKALINITY as } CaCO_3 = B \times \frac{F_3}{\text{mL sample}} \times CF \ *$$

FACTORS	DIGITAL COUNT TITRATION (DC) Using 0.1600 normal	Using 1.60 normal
F_1	12.0	120
F_2	12.2	122
F_3	10.0	100

	R	F
A = DC or mLs acid from initial pH to endpoint near 8.3 =	0	0
B = DC or mLs acid from initial pH to endpoint near 4.5 =	115	80

FACTORS	BURETTE * TITRATION (mL) Using ml of 0.01639 normal H_2SO_4
F_1	983.5
F_2	1000
F_3	820.2

* APPLY CORRECTION FACTOR (CF) IF ACID USED FOR BURETTE TITRATION HAS NONSTANDARD NORMALITY– CF = corr. factor = H_2SO_4 normality/0.01639

(IMPORTANT : CF NOT APPLICABLE FOR THE DIGITAL TITRATION FACTORS SHOWN; use only with nonstandard normality BURETTE titration)

	R	F	
ALKALINITY (00419/39086)	23	16	mg/L as $CaCO_3$
BICARBONATE (00450/00453)	28	19.5	mg/L as HCO_3^{-1}
CARBONATE (00447/00452)	0	0	mg/L as CO_3^{-2}

NOTE: ATTACH OUTPUT COPY IF ALKALINITY VALUES ARE CALCULATED USING A COMPUTER PROGRAM

OBSERVATIONS/CALCULATIONS :

U.S. GEOLOGICAL SURVEY – NATIONAL WATER QUALITY LABORATORY
ANALYTICAL SERVICES REQUEST

THIS SECTION MANDATORY FOR SAMPLE LOGIN

NWIS RECORD NUMBER / SAMPLE TRACKING ID	User Code	Project Account	LAB USE ONLY / NWQL LABORATORY ID
	004	47041680 0	

STATION ID	Begin Date (YYYYMMDD)	Begin Time	Medium Code	Sample Type
333346112104501	20010729	2315	9	9

District Contact Phone Number	End Date (YYYYMMDD)	End Time	District Contact Email
602-379-3089 EXT.230			kdfossum@usgs.gov

SITE / SAMPLE / SPECIAL PROJECT INFORMATION (Optional)

State	County	Geologic Unit Code	Analysis Status*	Analysis Source*	Hydrologic Condition*	Hydrologic Event*	Chain of Custody	Sample Set
04	013	—	H	9	9	J		

NWQL Proposal Number	NWQL Contact Name	NWQL Contact Email	Program/Project

Station Name: BUTLER Field ID: 333346112104501

Comments to NWQL: PARED NPDES SAMPLE. SEND TO OCALA LAB

Hazard (please explain):

ANALYTICAL WORK REQUESTS: SCHEDULES AND LAB CODES (CIRCLE A=add D=delete)

SCHED 1: 3134 SCHED 2: SCHED 3: SCHED 4: SCHED 5: SCHED 6:

Lab Code: 3072 A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D
Lab Code: 3074 A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D
Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D

SHIPPING INFORMATION (Please fill in number of containers sent)

ALF	1 COD	FA	FCN	IQE	IRM	1 RA	1 RU	SUR	TPCN
BGC	CRB	FAM	1 FU	IQL	MBAS	RAM	RUR	1 SUSO	UAS
C18	CU	FAR	FUS	IQM	OAG	RAR	RURCT	TBI	1 WCA
CC	CUR	1 FCA	GCC	IRE	PHE	RCB	RURCV	TBY	[redacted]
CHY	DOC	FCC	GCV	IRL	PIC	RCN	RUS	TOC	1 RCC

NWQL Login Comments:

Collected by: KEN FOSSUM Phone No. 602-379-3089 Ex.230 Date Shipped: 7/31/01

FIELD VALUES

Lab/P Code	Value	Remark	Lab/P Code	Value	Remark	Lab/P Code	Value	Remark
21/00095 Specific Conductance uS cm @ 25 deg C	—		51/00400 pH Standard Units	—		2/39086 Alkalinity – IT mg/L as CaCO3	—	

Field Comments:

*MANDATORY FOR NWIS

Revised 04/00

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CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 1

Client Name/Address: JULIE COX
FCDMC
2801 W. DURANGO
PHOENIX, AZ 85009

Project/PO Number: GLENDALE
NPDES STORMWATER

Project Manager: JULIE COX

Phone Number: 602-506-8401

Sampler: DUET, FOSSUM, WILSON

Fax Number: 602-506-4601

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	SB, AR, BE, CD, CR, CU, PB (TOTAL + DISS.)	HG, NI, SE, AG, TL, ZN (TOTAL + DISS.)	608, 625	TDS/TSS	NH_3, NO_3, NO_2, NO_2 + NO_3	Norg, TKN	PHENOLICS, CN⁻, TOC, COD, Cl⁻ (TOTAL, DISS, ORTHO)	ALKALINITY, HARDNESS	SULFATE, DISS.				Special Instructions
BUTLER-COMP.	S	MISC	1	7/29/01 2315	N	X	X	X	X	X	X	X	X	X				SEE ATTACHED GLENDALE ANALYSES FORM

Relinquished By: [signature] Date /Time: 7/29/01 0700
Received by: [signature] Date /Time: 073001 0705

Relinquished By: Date /Time:
Received by: Date /Time:

Relinquished By: Date /Time:
Received in Lab by: Date /Time:

Turnaround Time: (Check) SEE CONTRACT
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check) OK
intact ✓ on ice ✓

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

FedEx *USA Airbill* FedEx Tracking Number 807059205484

Form I.D. No. 0210

SLA12

Sender's Copy

1 From (please print and press hard)

Date 7/31/01 Sender's FedEx Account Number 1426-9217-1

Sender's Name KEN FOSSUM Phone (602) 379-3086

Company US GEOLOGICAL SURVEY

Address 1545 W UNIVERSITY DR

Dept./Floor/Suite/Room

City TEMPE State AZ ZIP 85281

2 Your Internal Billing Reference Information (Optional) (First 24 characters will appear on invoice) 470416800

3 To (please print and press hard)

Recipient's Name OCALA LAB Phone (352) 237-5514

Company US. GEOLOGICAL SURVEY

Address 4500 SW 40TH AVE

(To "HOLD" at FedEx location, print FedEx address here) (We Cannot Deliver to P.O. Boxes or P.O. ZIP Codes) Dept./Floor/Suite/Room

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City OCALA State FL ZIP 34470-5731

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☐ Hold Weekday (Not available with FedEx First Overnight)

☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

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☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only)

☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

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Questions?
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The World On Time

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas

☒ FedEx Priority Overnight (Next business morning)

☐ FedEx Standard Overnight (Next business afternoon)

☐ FedEx First Overnight (Earliest next business morning delivery to select locations) (Higher rates apply)

☐ FedEx 2Day (Second business day)

☐ FedEx Express Saver (Third business day)

FedEx Letter Rate not available. Minimum charge: One pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas

☐ FedEx Overnight Freight (Next business day)

☐ FedEx 2Day Freight (Second business day)

☐ FedEx Express Saver Freight (Up to 3 business days)

(Call for delivery schedule. See back for detailed descriptions of freight services.)

5 Packaging

☐ FedEx Letter ☐ FedEx Pak (Declared value limit $500) ☐ FedEx Box ☐ FedEx Tube ☒ Other Pkg

6 Special Handling (One box must be checked)

Does this shipment contain dangerous goods?*

☒ No ☐ Yes (As per attached Shipper's Declaration) ☐ Yes (Shipper's Declaration not required)

☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

☐ Cargo Aircraft Only

*Dangerous Goods cannot be shipped in FedEx packaging

7 Payment

Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

(Enter FedEx Account No. or Credit Card No. below)

FedEx Account No.

Credit Card No. Exp. Date

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	29	$ .00	$

*When declaring a value higher than $100 per shipment, you pay an additional charge. See **SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY** section for further information.

8 Release Signature *Sign to authorize delivery without obtaining signature*

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

321

Rev. Date 3/98
Part #153023
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006653462 2

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599276490042 In Transit
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820099403488 In Transit

Link

Track Shipments

Detailed Results

Quick Help

Tracking Number	807059205484
Reference Number	
Ship Date	
Delivered To	Ship'g/Receiv'g
Delivery Location	OCALA FL
Delivery Date/Time	08/01/2001 09:40
Signed For By	C.LOUGHEAY
Service Type	Priority Overnight

Tracking Options

- Obtain a Signature Proof of Delivery
- Email these tracking results to one or more recipients
- Track More Shipments

Scan Activity	Date/Time	Comments
Delivered OCALA FL	08/01/2001 09:40	
On FedEx vehicle for delivery OCALA FL	08/01/2001 08:59	
Arrived at FedEx Destination Location OCALA FL	08/01/2001 08:51	
Left FedEx Ramp ORLANDO FL	08/01/2001 07:09	
Arrived at FedEx Ramp ORLANDO FL	08/01/2001 06:18	
Left FedEx Sort Facility MEMPHIS TN	08/01/2001 04:29	
Left FedEx Sort Facility MEMPHIS TN	08/01/2001 01:47	
Arrived at Sort Facility MEMPHIS TN	08/01/2001 00:49	
Left FedEx Ramp PHOENIX AZ	07/31/2001 21:07	
Left FedEx Origin Location TEMPE AZ	07/31/2001 19:41	
Arrived at FedEx Ramp PHOENIX AZ	07/31/2001 19:04	
Picked up by FedEx TEMPE AZ	07/31/2001 15:09	

Email Your Detailed Tracking Results

Enter your email (optional), up to three email addresses as recipients, add your message, and click on **Send Email**.

From

To

To

To

Add a message to this email.

Send Email

FedEx Express
Customer Support Trace
3875 Airways Boulevard
Module H, 4th Floor
Memphis, TN 38116

U.S. Mail: PO Box 727
Memphis, TN 38194-4643

Telephone: 901-369-3600

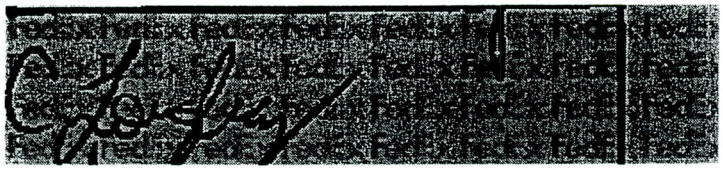
8/14/2001

Dear Customer:

Here is the proof of delivery for the shipment with tracking number **807059205484**. Our records reflect the following information.

Delivery Information:

Signed For By: C.LOUGHEAY



Delivery Location: 4500 SW 40TH AVE
Delivery Date: August 1, 2001
Delivery Time: 0940

Shipping Information:

Tracking No: 807059205484

Ship Date: July 31, 2001

Recipient:
OCALA LAB
US GEOLOGICAL SURVEY
4500 SW 40TH AVE
OCALA, FL 344705731
US

Shipper:
KEN FOSSUM
US GEOLOGICAL SURVEY
1545 W UNIVERSITY DR
TEMPE, AZ 852813227

Shipment Reference Information: 470416800

Thank you for choosing FedEx Express. We look forward to working with you in the future.

FedEx Worldwide Customer Service
1-800-Go-FedEx®
Reference No.: R2001081400031398050

Reno

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92626 Ph (949) 261-1022 Fax (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689
9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851

CHAIN OF CUSTODY FORM P0107070
SUBCONTRACT ORDER

Due: 08/07/01

SENDING LABORATORY:
Del Mar Analytical - Phoenix
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044
Phone: (480) 785-0043
Fax: (480) 785-0851
Project Manager: Linda Eshelman
Project: PKG0501 — MCFC

Butler Composite

RECEIVING LABORATORY:
NEL Laboratories
3021 S. 35th St., Bldg. B-Suite 6
Phoenix, AZ 85034
Phone: (602) 437-0099
Fax: (602) 437-2225

SAMPLE INTEGRITY:
Please complete upon receipt
intact: ☒ Y ☐ N _____ Initials
on ice: ☐ Y ☒ N _____ Initials
Temp: °C ☐ Y ☐ N _____ Initials
7

Sample Description	Sample Matrix	Sampling Date/Time	Analysis Required	Date Due	Expires	# of Cont.	Sample Bottle Type
PKG0501-01	Water	07/29/01 23:15	AA Arsenic - MCFC	Standard TAT	01/25/02 23:15	1	☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.001 mg/l							
PKG0501-02	Water	07/29/01 23:15	AA DIS Arsenic-MCFC	Standard TAT	01/25/02 23:15	1	☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.001 mg/l							
PKG0501-02	Water	07/29/01 23:15	AA DIS Beryll-MCFC	Standard TAT	01/25/02 23:15	1	☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.001 mg/l							
PKG0501-02	Water	07/29/01 23:15	ICPMS DisCopper-MCFC by EPA 200.8	Standard TAT	01/25/02 23:15	1	☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.002 mg/l							
PKG0501-02	Water	07/29/01 23:15	ICPMS DisSilver-MCFC by EPA 200.8	Standard TAT	01/25/02 23:15	1	☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.001 mg/l							

01

02

Reno

Del Mar Analytical

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1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
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9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851

CHAIN OF CUSTODY FORM

P0107070

Due 08/07/01

SUBCONTRACT ORDER

Relinquished By	Date/Time:
Relinquished By	Date/Time: 7/31/01 1426
Received By:	Date/Time: 7/30/01 1630
Received By:	Date/Time: 07/31/01 1426

Page 2 of 2

NEL INTERLAB SAMPLE CUSTODY RECORD 9.0 4°

Hold the Tests and Samples with Yellow Only

Relinquished/Date/Time / Received/Date/Time/Temp°C

Relinquished/Date/Time

Received/Date/Time/Temp °C

# of Containers

2

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92626 Ph (949) 261-1022 Fax (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689
9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851

CHAIN OF CUSTODY FORM
SUBCONTRACT ORDER

0107262

SENDING LABORATORY:

Del Mar Analytical - Phoenix
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044
Phone: (480) 785-0043
Fax: (480) 785-0851
Project Manager: Linda Eshelman
Project: PKG0501 - mCFC

Butler Composite

RECEIVING LABORATORY:

Transwest Geochem (out)
3725 E. Atlanta Ave Ste 1
Phoenix, AZ 85040-2961
Phone: 602-437-0330
Fax: 602-470-0660

SAMPLE INTEGRITY:

Please complete upon receipt

intact: ☑ Y ☐ N — SH Initials
on ice: ☐ Y ☑ N — SH Initials
Temp: °C ☑ Y ☐ N — SH Initials
5.8°

Sample Description	Sample Matrix	Sampling Date/Time	Analysis Required	Date Due	Expires	# of Cont.	Sample Bottle Type
PKG0501-01	Water	07/29/01 23:15	Phenols (420.1)-I	Standard TAT	08/12/01 23:15	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other

Special Instructions:
Send to Transwest - Needs a D.L. of 5.0 ppb.

pH 1

Relinquished By: [signature] Date/Time: 7/30/01
Received By: [signature] Date/Time: 7/30/01 1623

Relinquished By: [signature] Date/Time: 7/30/01 1653
Received By: [signature] Date/Time: 7/30/01 1653

U.S. GEOLOGICAL SURVEY, WRD, SURFACE-WATER QUALITY FIELD NOTES

BQA-1 3/92 (3rd printing, 1st ed.)

Proj. Name, No. MARICOPA URBAN - 470416800 Date JULY 29, 2001

Station INDPARK - ORANGEWOOD/NEWRIVER Sta.No. 333238112165201

Sampled By FOSSUM, WILSON, DUET Mean Time 2337 SMS Cntrl. No.

Record No. 00100551 Sample Purpose (71999) :

SAMPLES COLLECTED

Nutrients [X] TOC [ ]
Major Ions [ ] DOC [ ]
SOC [ ] Vol. Filt. ____ mL
BOD [ ] Turbidity [ ]
COD [X] [ ]
[ ]

ORGANICS: Pesticide [ ], VOC [ ], BNA [ ]

TR. ELEMENTS: Unfiltered [X], Filtered [ ], Suspended [ ], Bottom [ ]

Sediment Conc. [ ]
Sediment Size [ ]
Sed. Bot. Material [ ]
Sand Split/Break [ ]
Radiochemical [ ]
Isotope [ ]

FIELD MEASUREMENTS

					R	F	
Q. Inst. (00061)	8.61	cfs	meas.	Alkalinity (00419/39086)	76	33	mg/L
Gage Ht (00065)	0.80	ft.	rating est.	Bicarbonate (00450/00453)	93	40	mg/L
Temp. Water (00010)	26.0	°C		Carbonate (00447/00452)	0	0	mg/L
Temp. Air (00020)	—	°C		Hydroxide (—)	—		mg/L
pH (00400)	7.54	units		E. Coli (31633)	—		col./100 mL; Rmk
Sp. Cond. (00095)	197	µS/cm 25 °C		FC (31625)	—		col./100 mL; Rmk
Dis. Oxy. (00300)	3.30	mg/L		FS (31673)	—		col./100 mL; Rmk
DO Sat. (00301)	—	%		Other:			
Bar. Press. (00025)	733	mm Hg					

SAMPLING CONDITIONS

Location: Wading, cable, ice, boat, bridge, upstr., downstr., side bridge @ ft mile, above, below gage, and

Sampling site: Pool Riffle Open Channel Braided Backwater Sampler Type AUTO - SIGMA

Sample Method: EWI EDI OTHER AUTO-SAMPLER Sampler ID

Nozzle size 3/8" Nozzle Made of TEFLON Bottle type, size 4L - GLASS

Sample Split: Churn Cone Other ____ Made of TEFLON

LB ____ RB ____ Stream Width ____ Sampling Pts. CENTROID OF FLOW

Bottom: Bedrock Rock Cobble Gravel Sand Mud Concrete Other

LABORATORY SCHEDULES

Lab Schedules Req. (or copy of lab request form attached [X])

Sch. 3134

Lab Codes Add (A) Delete (D) :

3072(D), 3074(D)

Stage Conditions:

A Not Determined; 4 Stable, low; 5 Falling; 6 Stable, high; 9 Stable, normal; 7 Peak; 8 Rising

Observations:

(Codes: 0-none 1-mild 2-moderate 3-serious 4-extreme)

(option: LEAVE BLANK IF NONE)

Floating debris	(01345) :	
Floating garbage	(01320) :	
Floating algae mats	(01325) :	
Fish kill	(01340) :	
Detergent suds	(01305) :	
Turbidity	(01350) :	
Atms. Odor	(01330) :	
Oil-grease	(01300) :	

Sampling		GHT
Start Time		
Mean Time =		
End Time		

Hydrologic Event: 9 Routine samp. A Spg. breakup B Ice Cover; 1 Drought 2 Spill 3 Reg. Flow 4 Snowmelt 7 Flood

Other J-STORM Ice Thickness ____ Ice cover ____

Stream color(s): brown green blue gray other clear

Stream Mixing: Excellent Good Fair Poor Clarity/Turbidity:

Weather: Clear Partly Cloudy Cloudy Light Medium Heavy Snow Rain
Calm Light Breeze Very Gusty Windy Very Cold Warm Hot Other

Other Observations

81395 (MGD) = 0.063
82381 (TOTAL PRECIP) = 0.59 inches
00129 (MAX 5) = 2.76 inches/hour
00135 (STORM LENGTH) = 253 minutes = 4.22 hours
00132 (DRY DAYS) = 26 days

(Cont. p. 3,4)

Checked by Date

TEMPERATURE

Lab Tested Thermometer used? ☐ Yes ☒ No — If NO, explain in remarks

Thermometer Checked w/ASTM within ± 0.5 °C; Date

AMPULE LOT NUMBERS: nitric acid _____ mercuric chloride _____ nitric acid/potassium dichromate

pH

Mtr W-no. W-495251 METER Make/Model CORNING CHECKMATE 90

electrode no. electrode type

pH Buffer	pH Buffer Temp °C	Initial Reading	Adj. Reading	Remarks
7.00	29.0	7.00	7.00	OK
10.01	29.0	10.01	10.01	OK
.				
.				

☒ unfiltered sample ☐ filtered sample

Temp correction factors for buffers applied? ☒ YES ☐ NO

stirrer used? ☐ YES ☒ NO

if yes, ☐ magnetic stirrer ☐ manually stirred

pH subsample from or pH measurement location : Churn sample bottle (single point at ____ sta ____ depth) vertical avg of ____ points x-sec average of ____ points

Sample Temp = 26.0 °C

FIELD pH = 7.54 USE : 7.54

SPECIFIC CONDUCTANCE

Mtr W-no. W-495251 METER Make/Model CORNING CHECKMATE 90

probe no.

standard value	Temp Std °C	Initial Reading	Adj. Reading	Remarks
0	29.0	0	0	OK
1413 µS	29.0	1413 µS	1413 µS	OK

correction factor applied? ☐ YES ☒ NO

☒ auto temp compensated meter

☐ manual temp compensated meter

corr. factor = _____

SC subsample from or SC measurement location : Churn sample bottle (single point at ____ sta ____ depth) vertical avg of ____ points x-sec avg of ____ points

FIELD CONDUCTANCE = 197 µS USE : 197 µS

DISSOLVED OXYGEN

W-no. _____ METER Make/Model YSI-55

D.O. measurement location or D.O. subsample from : (single point at ____ sta ____ depth) vertical avg of ____ points x-sec avg of ____ points BOD bottle

Calibration :

☒ Air Calibration in Water ☐ Air Calibration Chamber in Air

☐ Air-Saturation Deionized Water ☐ Calibration by Winkler Titration (attach Supplementary Winkler page)

D.O. Zero Check (using zero D.O. solution) ☐ YES ☒ NO

Thermister Check ☐ YES ☒ NO

BAR. PRESS 733 mm Hg; (mm = in. X 25.4)

Salinity Corr. Factor ____ H_2O Temp. 26.0 °C

Chart D.O. Sat. _____ mg/L stirrer used? ☐ YES ☒ NO if yes, ☐ magnetic stirrer ☐ manually stirred

Meter D.O. Sat. _____ mg/L; Adjusted to _____ (if corr. factor applicable)

DISSOLVED OXYGEN IN STREAM = 3.30 mg/L

QUALITY ASSURANCE SAMPLES

Were quality assurance samples collected? ☐ YES ☒ NO If YES indicate type(s) :

	Organic-free	DI	water from sampling site
Replicate	☐	☐	☐
Spike	☐	☐	☐
Field Blank	☐	☐	
Trip Blank	☐	☐	

Supplementary page w/additional QA sample info attached ☐

Other ☐ Indicate Type(s) :

Calibration Notes and Remarks

USED INTERNAL THERMISTOR IN CORNING METER.

ALKALINITY

pH	△ pH	Vol acid DC or mL	△Vol acid DC or mL	△ pH / △ Vol acid
RAW				
7.80		0		
5.30	2.50	340	340	.007
5.20	.10	350	10	.01
5.08	.12	360	10	.012
4.90	.18	370	10	.018
4.68	.22	380	10	.022
4.55	.13	390	10	.013
4.46	.09	400	10	.009
4.28	.18	420	20	.009
4.14	.14	440	20	.007
4.00	.14	460	20	.007
FILTERED				
7.66		0		
5.17	2.49	145	145	.017
5.07	.10	150	5	.02
4.97	.10	155	5	.02
4.88	.09	160	5	.018
4.71	.17	165	5	.034
4.61	.10	170	5	.02
4.51	.10	175	5	.02
4.41	.10	180	5	.02
4.22	.19	190	10	.019
4.04	.18	200	10	.018
3.88	.16	210	10	.016

Acid: 1.60 N 0.1600 N 0.01639N OTHER

Acid Lot No. : A1019 EXP 7/2

Sample Volume : 50 mL

☒ Filtered ☒ Unfiltered

Sample stirred : ☒ magnetically ☐ manually

pH: Start _____ End _____

	R	F
DC (Digital Counts) or Vol. titrated at End Point near pH 8.3 :	0	0
Digital Counts or Vol. titrated at End Point near pH 4.5 :	380	165

☒ Incremental Equivalence ☐ Fixed End Point ☐ Gran Titration

Date JULY 30 Time 0800

CALCULATIONS :

$$CO_3^{-2} = A \times \frac{F_1}{\text{mL sample}} \times CF \ *$$

$$HCO_3^{-1} = [B - 2(A)] \times \frac{F_2}{\text{mL sample}} \times CF; \ *$$

$$\text{ALKALINITY as } CaCO_3 = B \times \frac{F_3}{\text{mL sample}} \times CF \ *$$

FACTORS	DIGITAL COUNT TITRATION (DC) Using 0.1600 normal	Using 1.60 normal
F_1	12.0	120
F_2	12.2	122
F_3	10.0	100

	R	F
A = DC or mLs acid from initial pH to endpoint near 8.3 =	0	0
B = DC or mLs acid from initial pH to endpoint near 4.5 =	380	165

FACTORS	BURETTE * TITRATION (mL) Using ml of 0.01639 normal H_2SO_4
F_1	983.5
F_2	1000
F_3	820.2

* APPLY CORRECTION FACTOR (CF) IF ACID USED FOR BURETTE TITRATION HAS NONSTANDARD NORMALITY-- CF = corr. factor = H_2SO_4 normality/0.01639

(IMPORTANT : CF NOT APPLICABLE FOR THE DIGITAL TITRATION FACTORS SHOWN; use only with nonstandard normality BURETTE titration)

	R	F	
ALKALINITY (00419/39086)	76	33	mg/L as $CaCO_3$
BICARBONATE (00450/00453)	93	40	mg/L as HCO_3^{-1}
CARBONATE (00447/00452)	0	0	mg/L as CO_3^{-2}

NOTE: ATTACH OUTPUT COPY IF ALKALINITY VALUES ARE CALCULATED USING A COMPUTER PROGRAM

OBSERVATIONS/CALCULATIONS :

U.S. GEOLOGICAL SURVEY – NATIONAL WATER QUALITY LABORATORY
ANALYTICAL SERVICES REQUEST

THIS SECTION MANDATORY FOR SAMPLE LOGIN

NWIS RECORD NUMBER / SAMPLE TRACKING ID	User Code	Project Account	LAB USE ONLY / NWQL LABORATORY ID
	004	470416800	

STATION ID	Begin Date (YYYYMMDD)	Begin Time	Medium Code	Sample Type
333238112165201	20010729	2337	9	9

District Contact Phone Number	End Date (YYYYMMDD)	End Time	District Contact Email
602-379-3089 EXT.230			kdfossum@usgs.gov

SITE / SAMPLE / SPECIAL PROJECT INFORMATION (Optional)

State	County	Geologic Unit Code	Analysis Status*	Analysis Source*	Hydrologic Condition*	Hydrologic Event*	Chain of Custody	Sample Set
04	013	—	H	9	9	J		

NWQL Proposal Number	NWQL Contact Name	NWQL Contact Email	Program/Project

Station Name: IND PARK Field ID: 333238112165201

Comments to NWQL: PARED NPDES SAMPLE. SEND TO OCALA LAB.

Hazard (please explain):

ANALYTICAL WORK REQUESTS: SCHEDULES AND LAB CODES (CIRCLE A=add D=delete)

SCHED 1: 3134 SCHED 2: SCHED 3: SCHED 4: SCHED 5: SCHED 6:

Lab Code: 3072 A (D)	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D
Lab Code: 3074 A (D)	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D
Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D	Lab Code: A D

SHIPPING INFORMATION (Please fill in number of containers sent)

	ALF	1	COD		FA		FCN		IQE		IRM	1	RA	1	RU		SUR		TPCN
	BGC		CRB		FAM	1	FU		IQL		MBAS		RAM		RUR	1	SUSO		UAS
	C18		CU		FAR		FUS		IQM		OAG		RAR		RURCT		TBI	1	WCA
	CC		CUR	1	FCA		GCC		IRE		PHE		RCB		RURCV		TBY	[redacted]	
	CHY		DOC		FCC		GCV		IRL		PIC		RCN		RUS		TOC	1	RCC

NWQL Login Comments:

Collected by: KEN FOSSUM Phone No. 602-379-3089 Ex.230 Date Shipped: 7/31/01

FIELD VALUES

Lab/P Code	Value	Remark	Lab/P Code	Value	Remark	Lab/P Code	Value	Remark
21/00095 Specific Conductance uS/cm @ 25 deg C	197		51/00400 pH Standard Units	7.54		2/39086 Alkalinity IT mg/L as CaCO3	—	

Field Comments:

*MANDATORY FOR NWIS

Revised 04/00

Del Mar Analytical
2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
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16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 1

Client Name/Address: JULIE COX
FCDMC
2801 W. DUNLANGO
PHOENIX, AZ 85009

Project/PO Number: GLENDALE
NPDES STORMWATER

Project Manager: JULIE COX

Phone Number: 602-506-8401

Sampler: DUET, FOSSUM, WILSON

Fax Number: 602-506-4601

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	1 BOD	1 FECAL STREP	1 FECAL COLI.	1 E. COLI.	2 OIL & GREASE	4 624							Special Instructions
IND. PARK-GRAB	S	MISC	10	7/30/01 93:40	Y	X	X	X	X	X	X							

Analysis Required

Relinquished By: Norbert R. Duet Date /Time: 7/30/01 0700
Received by: [illegible] Date /Time: 07/30/01 0700

Relinquished By: Date /Time:
Received by: Date /Time:

Relinquished By: Date /Time:
Received in Lab by: Date /Time:

Turnaround Time: (Check) SEE CONTRACT
same day _____ 72 hours _____
24 hours _____ 5 days _____
48 hours _____ normal ✓

Sample Integrity: (Check) OK
intact ✓ on ice ✓

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Del Mar Analytical
2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-9596 FAX (858) 505-9689

CHAIN OF CUSTODY FORM

Client Name/Address: JULIE COX, FCDMC
2801 W. DURANGO
PHOENIX, AZ 85009

Project/PO Number: GLENDALE
NPDES STORMWATER.

Project Manager: JULIE COX

Phone Number: 602-506-8401

Sampler: DUET, FOSSUM, WILSON

Fax Number: 602-506-4601

Analysis Required (TOTAL or DISS.)

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	SB, AR, BE, CD, CR	CU, PB	HG, NI, SE, AG, TL	ZN	608, 625	TDS/TSS	NH_3, NO_3, NO_2,	NO_2 + NO_3	N ORG, TKN	P (TOTAL, DISS, ORTHO)	PHENOLICS, CN, TOC,	COD, CL	ALKALINITY, HARDNESS	SULFATE, DISS.	Special Instructions
IND. PARK-COMP.	SW	MISC	1	7/29/01	2337	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	SEE ATTACHED GLENDALE ANALYSES FORM

Relinquished By: Barbara J. Wilson Date /Time: 7/30/2001 7:53am

Received by: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [illegible] Date /Time: 7.30.01 7:54am

Turnaround Time: (Check) SEE CONTRACT
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check)
intact ____ on ice ✓

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

FedEx *USA Airbill* FedEx Tracking Number 807059205484 Form I.D. No. 0210 SLA12

Sender's Copy

1 From (please print and press hard)

Date 7/31/01 Sender's FedEx Account Number 1426-9217-1

Sender's Name KEN FOSSUM Phone (602) 379-3086

Company US GEOLOGICAL SURVEY

Address 1545 W UNIVERSITY DR Dept./Floor/Suite/Room

City TEMPE State AZ ZIP 85281

2 Your Internal Billing Reference Information (Optional) (First 24 characters will appear on invoice) 470416800

3 To (please print and press hard)

Recipient's Name OCALA LAB Phone (352) 237-5514

Company US GEOLOGICAL SURVEY

Address 4500 SW 40TH AVE Dept./Floor/Suite/Room

(To "HOLD" at FedEx location, print FedEx address here) (We Cannot Deliver to P.O. Boxes or P.O. ZIP Codes)

☐ Check here if residence (Extra charge applies for FedEx Express Saver)

City OCALA State FL ZIP 34470-5731

For HOLD at FedEx Location check here

☐ Hold Weekday (Not available with FedEx First Overnight) ☐ Hold Saturday (Not available at all locations) (Available for FedEx Priority Overnight and FedEx 2Day only)

For WEEKEND Delivery check here (Extra Charge. Not available to all locations)

☐ Saturday Delivery (Available for FedEx Priority Overnight and FedEx 2Day only) ☐ NEW Sunday Delivery (Available for FedEx Priority Overnight only)

Service Conditions, Declared Value, and Limit of Liability – By using this Airbill, you agree to the service conditions in our current Service Guide or U.S. Government Service Guide. Both are available on request. SEE BACK OF SENDER'S COPY OF THIS AIRBILL FOR INFORMATION AND ADDITIONAL TERMS. We will not be responsible for any claim in excess of $100 per package whether the result of loss, damage, or delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss in a timely manner. Your right to recover from us for any loss includes intrinsic value of the package, loss of sales, interest, profit, attorney's fees, costs, and other forms of damage, whether direct, incidental, consequential, or special, and is limited to the greater of $100 or the declared value but cannot exceed actual documented loss. The maximum declared value for any FedEx Letter and FedEx Pak is $500. Federal Express may, upon your request, and with some limitations, refund all transportation charges paid. **See the FedEx Service Guide for further details.**

Questions?
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The World On Time®

4a Express Package Service *Packages under 150 lbs.* Delivery commitment may be later in some areas

☒ FedEx Priority Overnight (Next business morning) ☐ FedEx Standard Overnight (Next business afternoon)

☐ FedEx First Overnight (Earliest next business morning delivery to select locations) (Higher rates apply)

☐ FedEx 2Day (Second business day) ☐ FedEx Express Saver (Third business day)

FedEx Letter Rate not available. Minimum charge: One pound rate

4b Express Freight Service *Packages over 150 lbs.* Delivery commitment may be later in some areas

☐ FedEx Overnight Freight (Next business day) ☐ FedEx 2Day Freight (Second business day) ☐ FedEx Express Saver Freight (Up to 3 business days)

(Call for delivery schedule. See back for detailed descriptions of freight services.)

5 Packaging ☐ FedEx Letter ☐ FedEx Pak (Declared value limit $500.) ☐ FedEx Box ☐ FedEx Tube ☒ Other Pkg

6 Special Handling (One box must be checked)

Does this shipment contain dangerous goods?* ☒ No ☐ Yes (As per attached Shipper's Declaration) ☐ Yes (Shipper's Declaration not required)

☐ Dry Ice Dry Ice, 9, UN 1845 _____ x _____ kg ☐ Cargo Aircraft Only

*Dangerous Goods cannot be shipped in FedEx packaging

7 Payment

Bill to: ☒ Sender (Account No. in Section 1 will be billed) ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

(Enter FedEx Account No. or Credit Card No. below)

FedEx Account No.

Credit Card No. Exp Date

Total Packages	Total Weight	Total Declared Value*	Total Charges
1	29	$ .00	$

* When declaring a value higher than $100 per shipment, you pay an additional charge. See **SERVICE CONDITIONS, DECLARED VALUE, AND LIMIT OF LIABILITY** section for further information.

8 Release Signature *Sign to authorize delivery without obtaining signature*

Your signature authorizes Federal Express to deliver this shipment without obtaining a signature and agrees to indemnify and hold harmless Federal Express from any resulting claims.

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006653462 2

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599276490042 In Transit
642927705534 In Transit
820099403488 In Transit

Link

Quick Help

Track Shipments

Detailed Results

Tracking Number	807059205484
Reference Number	
Ship Date	
Delivered To	Ship'g/Receiv'g
Delivery Location	OCALA FL
Delivery Date/Time	08/01/2001 09:40
Signed For By	C.LOUGHEAY
Service Type	Priority Overnight

Tracking Options

- Obtain a Signature Proof of Delivery
- Email these tracking results to one or more recipients
- Track More Shipments

Scan Activity	Date/Time	Comments
Delivered OCALA FL	08/01/2001 09:40	
On FedEx vehicle for delivery OCALA FL	08/01/2001 08:59	
Arrived at FedEx Destination Location OCALA FL	08/01/2001 08:51	
Left FedEx Ramp ORLANDO FL	08/01/2001 07:09	
Arrived at FedEx Ramp ORLANDO FL	08/01/2001 06:18	
Left FedEx Sort Facility MEMPHIS TN	08/01/2001 04:29	
Left FedEx Sort Facility MEMPHIS TN	08/01/2001 01:47	
Arrived at Sort Facility MEMPHIS TN	08/01/2001 00:49	
Left FedEx Ramp PHOENIX AZ	07/31/2001 21:07	
Left FedEx Origin Location TEMPE AZ	07/31/2001 19:41	
Arrived at FedEx Ramp PHOENIX AZ	07/31/2001 19:04	
Picked up by FedEx TEMPE AZ	07/31/2001 15:09	

Email Your Detailed Tracking Results

Enter your email (optional), up to three email addresses as recipients, add your message, and click on **Send Email**.

From

To

To

To

Add a message to this email.

Send Email

FedEx Express
Customer Support Trace
3875 Airways Boulevard
Module H, 4th Floor
Memphis, TN 38116

U.S. Mail: PO Box 727
Memphis, TN 38194-4643

Telephone: 901-369-3600

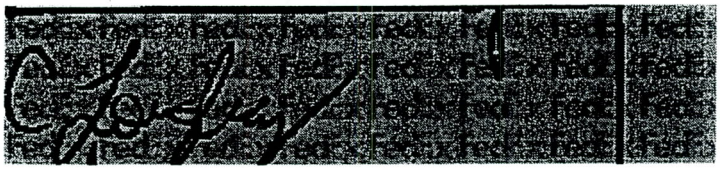
8/14/2001

Dear Customer:

Here is the proof of delivery for the shipment with tracking number **807059205484**. Our records reflect the following information.

Delivery Information:

Signed For By: C.LOUGHEAY



Delivery Location: 4500 SW 40TH AVE
Delivery Date: August 1, 2001
Delivery Time: 0940

Shipping Information:

Tracking No: 807059205484

Ship Date: July 31, 2001

Recipient:
OCALA LAB
US GEOLOGICAL SURVEY
4500 SW 40TH AVE
OCALA, FL 344705731
US

Shipper:
KEN FOSSUM
US GEOLOGICAL SURVEY
1545 W UNIVERSITY DR
TEMPE, AZ 852813227

Shipment Reference Information: 470416800

Thank you for choosing FedEx Express. We look forward to working with you in the future.

FedEx Worldwide Customer Service
1-800-Go-FedEx®
Reference No.: R2001081400031398050

Del Mar Analytical

2852 Alton (ine, CA 92626 Ph (949) 261-1022 Fax (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689
9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851

CHAIN OF CUSTODY FORM
SUBCONTRACT ORDER

SENDING LABORATORY:
Del Mar Analytical - Phoenix
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044
Phone: (480) 785-0043
Fax: (480) 785-0851
Project Manager: Linda Eshelman
Project: PKG0506 – Ind. Park Grab

RECEIVING LABORATORY:
ES Envirnmental Services/Severn
3333 S. Old Price Rd
Chandler, AZ 85248
Phone: 480-899-0191
Fax: 480-899-0349

SAMPLE INTEGRITY:
Please complete upon receipt
intact: ☑ Y ☐ N Initials
on ice: ☑ Y ☐ N Initials
Temp: °C ☑ Y ☐ N Initials
2°C

Sample Description	Sample Matrix	Sampling Date/Time	Analysis Required	Date Due	Expires	# of Cont.	Sample Bottle Type
PKG0506-01	Water	07/30/01 03:40	BOD	Standard TAT	08/01/01 03:40	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: None							
PKG0506-01	Water	07/30/01 03:40	EColiform-O	Standard TAT	07/31/01 03:40	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: None Sent							
PKG0506-01	Water	07/30/01 03:40	Fecal Coliform-O	Standard TAT	07/30/01 08:28		☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: None sent							
PKG0506-01	Water	07/30/01 03:40	Fecal Strep-O	Standard TAT	07/30/01 08:28		☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: None sent							

Relinquished By	Date/Time:	Received By:	Date/Time:
[signature]	1410	[signature]	7/30/01 14:10
[signature]	7/30/01 14:30	[signature]	073001 1430

Kemo

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92626 Ph (949) 261-1022 Fax (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
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9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851

CHAIN OF CUSTODY FORM P0107071

Due: 08/07/01

SUBCONTRACT ORDER

SENDING LABORATORY:
Del Mar Analytical - Phoenix
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044
Phone: (480) 785-0043
Fax: (480) 785-0851
Project Manager: Linda Eshelman
Project: PKG0499 - MCFG

Ind. Pots Composite

RECEIVING LABORATORY:
NEL Laboratories
3021 S. 35th St., Bldg. B-Suite 6
Phoenix, AZ 85034
Phone: (602) 437-0099
Fax: (602) 437-2225

SAMPLE INTEGRITY:
Please complete upon receipt
intact: ☑ Y ☐ N Initials
on ice: ☐ Y ☑ N Initials
Temp: °C 7 ☐ Y ☐ N Initials

Sample Description	Sample Matrix	Sampling Date/Time	Analysis Required	Date Due	Expires	# of Cont.	Sample Bottle Type
PKG0499-01	Water	07/29/01 23:37	AA Arsenic - MCFC	Standard TAT	01/25/02 23:37	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleev ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.001 mg/l							
PKG0499-02	Water	07/29/01 23:37	AA DIS Arsenic-MCFC	Standard TAT	01/25/02 23:37	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleev ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.001 mg/l							
PKG0499-02	Water	07/29/01 23:37	AA DIS Beryll-MCFC	Standard TAT	01/25/02 23:37	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleev ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.001 mg/l							
PKG0499-02	Water	07/29/01 23:37	ICPMS DisCopper-MCFC by EPA 200.8	Standard TAT	01/25/02 23:37	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleev ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.002 mg/l							
PKG0499-02	Water	07/29/01 23:37	ICPMS DisSilver-MCFC by EPA 200.8	Standard TAT	01/25/02 23:37	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleev ☐ Other
Special Instructions: NEL - Needs a D.L. of 0.001 mg/l							

01

02

Share bottle

Kens

Del Mar Analytical

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1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689
9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851

CHAIN OF CUSTODY FORM

P0107071

SUBCONTRACT ORDER

Due: 08/07/01

Relinquished By: [signature] Date/Time: 7/30/01 1700

Received By: [signature] Date/Time: 7/30/01 1630

Relinquished By: [signature] Date/Time: 7/31/01 1426

Received By: [signature] Date/Time: 07/31/01 1426

NEL INTERLAB SAMPLE CUSTODY RECORD
Include Tests and Samples with Yellow Only

[signature] 07/31/01 9:00 4°
Relinquished/Date/Time Received/Date/Time/Temp°C

Relinquished/Date/Time

Received/Date/Time/Temp °C

# of Containers

2

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92626 Ph (949) 261-1022 Fax (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689
9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851

CHAIN OF CUSTODY FORM
SUBCONTRACT ORDER

0107261

SENDING LABORATORY:
Del Mar Analytical - Phoenix
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044
Phone: (480) 785-0043
Fax: (480) 785-0851
Project Manager: Linda Eshelman
Project: PKG0499 — Ind Park Composite

RECEIVING LABORATORY:
Transwest Geochem (out)
3725 E. Atlanta Ave Ste 1
Phoenix, AZ 85040-2961
Phone: 602-437-0330
Fax: 602-470-0660

SAMPLE INTEGRITY:
Please complete upon receipt
intact: ☑ Y ☐ N — SB Initials
on ice: ☐ Y ☑ N — SB Initials
Temp: °C ☑ Y ☐ N — SB Initials
5.5°

Sample Description	Sample Matrix	Sampling Date/Time	Analysis Required	Date Due	Expires	# of Cont.	Sample Bottle Type
PKG0499-01	Water	07/29/01 23:37	Phenols (420.1)-I	Standard TAT	08/12/01 23:37	1	☐ Voa ☐ Amber Voa ☑ ~~Poly~~ ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other

Special Instructions:
Send to Transwest - Needs a D.L. of 5.0 ppb.

pH 1

Relinquished By: [signature] Date/Time: 7/30/01 1623
Received By: [signature] Date/Time: 7/30/01 1623
Relinquished By: [signature] Date/Time: 7/30/01 1653
Received By: [signature] Date/Time: 7/30/01 1653

Del Mar Analytical
2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 92406 (818) 779-1844 FAX (818) 779-1843
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CHAIN OF CUSTODY FORM

Quote #: _____ Page 1 of 1

Client Name/Address: JULIE COX
FCDMC
2801 W. DURANGO
PHOENIX, AZ 85009

Project/PO Number: GLENDALE
NPDES STORMWATER

Project Manager: JULIE COX

Phone Number: 602-506-8401

Sampler: DUET, FOSSUM, WILSON

Fax Number: 602-506-4601

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	1 BOD	1 FECAL STREP	1 FECAL COLI.	1 E. COLI.	2 OIL + GREASE	8/624						Special Instructions
67TH + OLIVE - GRAB	S	MISC	10	02:15 7/30/01	Y	X	X	X	X	X	X						

Relinquished By:	Date /Time:	Received by:	Date /Time:
Robert [illegible]	7/30/01 0700	[illegible]	073001 0708
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:

Turnaround Time: (Check) SEE CONTRACT
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ✓

Sample Integrity: (Check) 0°C
intact ✓ on ice ✓

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC GB

Del Mar Analytical

2852 Alton Pkwy, Irvine, CA 92626 Ph (949) 261-1022 Fax (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689
9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851

CHAIN OF CUSTODY FORM
SUBCONTRACT ORDER

SENDING LABORATORY:
Del Mar Analytical - Phoenix
9830 South 51st Street, Suite B-120
Phoenix, AZ 85044
Phone: (480) 785-0043
Fax: (480) 785-0851
Project Manager: Linda Eshelman
Project: PKG0505 mg FC Olive Grab

RECEIVING LABORATORY:
ES Envirnmental Services/Severn
3333 S. Old Price Rd
Chandler, AZ 85248
Phone: 480-899-0191
Fax: 480-899-0349

SAMPLE INTEGRITY:
Please complete upon receipt
intact: ☑ Y ☐ N Initials
on ice: ☑ Y ☐ N Initials
Temp: °C ☑ Y ☐ N Initials
2°c

Sample Description	Sample Matrix	Sampling Date/Time	Analysis Required	Date Due	Expires	# of Cont.	Sample Bottle Type
PKG0505-01	Water	07/30/01 02:15	BOD	Standard TAT	08/01/01 02:15	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Sleeve ☐ Other
Special Instructions: None							
PKG0505-01	Water	07/30/01 02:15	EColiform-O	Standard TAT	07/31/01 02:15	1	☐ Voa ☐ Amber Voa ☑ Poly ☐ Glass Jar ☐ Amber ☐ Brass Slee... ☐ Other
Special Instructions: None Sent							
PKG0505-01	Water	07/30/01 02:15	Fecal Coliform-O	Standard TAT	07/30/01 07:03		☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Slee ☐ Other
Special Instructions: None Sent							
PKG0505-01	Water	07/30/01 02:15	Fecal Strep-O	Standard TAT	07/30/01 07:03		☐ Voa ☐ Amber Voa ☐ Poly ☐ Glass Jar ☐ Amber ☐ Brass Slee ☐ Other
Special Instructions: None Sent							

Relinquished By: [signature] Date/Time: Received By: [signature] Date/Time: 7/30/01 14:10

Relinquished By: [signature] Date/Time: 7/30/01 14:30 Received By: [signature] Date/Time: 073001 14/30

Maintenance and Storm Event Log Sheets

FCD/USGS STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	7/5/01
ARRIVAL TIME	12:00	DEPARTURE TIME	12:30	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.2 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

CHANGED CELL PHONE BATTERY. CALLED OFFICE TO DOWNLOAD DATA. CLEANED PUMP AND BOTTLES. REPAIRED CRACK IN INTAKE TUBING.

FCD/USGS STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	07/06/01
ARRIVAL TIME	1700	DEPARTURE TIME	1705	SERVICED BY	BJW + CMO
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

RESET SIGMA

FCD/USGS STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	7-26-01
ARRIVAL TIME	09:05	DEPARTURE TIME	09:25	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	Low 11.2 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

SIGMA MALFUNCTIONED - DISTRIBUTOR JAMMED. PUMP RUNNING ALL NIGHT LONG. SIGMA REMOVED - DROPPED OFF AT FCDMC SHOP (11:45).

STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	8-2-01
ARRIVAL TIME	10:30	DEPARTURE TIME	10:45	SERVICED BY	FOSSUM
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.0 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 WENT TO REPLACE SIGMA 900, REPLACEMENT SIGMA

2 WAS MISSING DISTRIBUTOR. RETURNED TO FCDMC

3 FOR REPAIR.

FCD/USGS STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	8/3/01
ARRIVAL TIME	14:10	DEPARTURE TIME	15:00	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	LOANER SIGMA DOESN'T HAVE RIGHT CONNECTIONS
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

PROGRAMMING OF LOANER SIGMA WAS UNSUCESSFUL.

FCD/USGS STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	8/6/01
ARRIVAL TIME	10:55	DEPARTURE TIME	11:05	SERVICED BY	BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

REMOVED LOANER SIGMA AND RETURNED TO FCDMC.

STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	8/24/01
ARRIVAL TIME	0810	DEPARTURE TIME	0900	SERVICED BY	Fossum
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.1 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 INSTALLED LOANER SIGMA, CHANGED PHONE

2 BATTERY.

3

STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	9-10-01
ARRIVAL TIME	09:40	DEPARTURE TIME	09:45	SERVICED BY	FOSSUM
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.5 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 CHANGED PHONE BATTERY

2

3

STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	9-11-01
ARRIVAL TIME	10:40	DEPARTURE TIME	11:05	SERVICED BY	FOSSUM
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.3 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 CHANGED OUT SAMPLER W/ REPAIRED SAMPLER

2

3

STORMWATER O&M LOG SHEET

SITE	Arrow			DATE	Sept. 12, 2001
ARRIVAL TIME	4:54	DEPARTURE TIME	5:27	SERVICED BY	bjwilson
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Flashing 'RS485 Timed Out'. Time shows 05:55pm. Level

2 flow, rainfall all = 0, . Reset time to 24 hr. from mt.

3 Level = 1.492', Flow = 1.38 cfs, Vel. = 1.54, Rainfall = 0.0

battery = 13.1. 'RS485 still Flashing. Changed phone battery.

Date: 8/2/01

STORMWATER O&M LOG SHEET

SITE	Airow			DATE	9/14/01
ARRIVAL TIME	4:30	DEPARTURE TIME	5:06	SERVICED BY	BGW
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	~~YES~~ NO	13.1 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	~~YES~~ NO	
CELLULAR ANTENNA	~~YES~~ NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES ~~NO~~	problem
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES ~~NO~~	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Sam Co. still unable to read data through 'Insite' program today. Checked wires and ~~both~~
2 checked tubing. The tubing inside the drain is cracked. The LCD
3 still reads 'RS 484 Timed out'. Sigma is not reading 'Level', 'Flow', etc..
so I just shut it off until we can replace tubing.

Date: 8/2/01

STORMWATER O&M LOG SHEET

SITE	ARROW			DATE	9-21-01
ARRIVAL TIME	08:20	DEPARTURE TIME	08:40	SERVICED BY	FOSSUM
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.2 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	PROBLEM WITH RS-485 PORT
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 DROPPED SAMPLER OFF AT FCDMC FOR REPAIR AGAIN.

2

3

FCD/USGS STORMWATER O&M LOG SHEET

SITE	BUTLER			DATE	7/6/01
ARRIVAL TIME	1540	DEPARTURE TIME	1550	SERVICED BY	FOSSUM & DUET
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

RESET SIGMA

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Butler			DATE	7-26-01
ARRIVAL TIME	9:55	DEPARTURE TIME	10:18	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	~~YES~~ NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Cleaned bottles and sampler, reset.

STORM EVENT LOG SHEET

1. Site: BUTLER Your Name: KDF, BJW, NRD

2. Date: 7/30/01 Time: 03:00

SAMPLER PARAMETERS

3. Rainfall: 0.71 **in**

4. Flow: [redacted] Ø **cfs**

5. Level: 0.069 [redacted] inches

O&M PARAMETERS

6. Did sampling equipment operate during event? **Yes or No?** Describe problems.

7. Battery voltage: 12.8 **volts**

8. Power **On or Off?** If power off (Mesa), reset circuit breaker and check/replace fuse if necessary.

FIELD PARAMETERS

9. Discharge (flow) at time of grabs ~~0~~ **cfs**

10. pH — **std units**

11. Temperature — **deg. C**

12. Specific Conductance — **uS/cm**

13. Dissolved Oxygen — **mg/L**

14. Barometric Pressure — **mmHg**

GRAB SAMPLES Take grabs from discharge only!

15. Grab samples taken? **Yes or No?** NO FLOW AT TIME OF GRABS

16. Preservatives added to bottles? **Yes or No?**

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Butler			DATE	8/1/01		
ARRIVAL TIME	11:45	DEPARTURE TIME	11:55	SERVICED BY	KDF, BJW		
SAMPLER		(SIGMA) OR ISCO		MODEL NUMBER	800	(900)	other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	(YES) NO	12.7 volts
SOLAR PANEL CLEAN	(YES) NO	
CABLES AND CONNECTIONS GOOD	(YES) NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	(YES) NO	
RAINGAGE (screen, funnel, tipping bucket)	(YES) NO	
SAMPLE TUBING (intake, pump, distributor)	(YES) NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	(YES) NO	
CALIBRATED DEPTH SENSOR	(YES) NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES (NO)	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Replaced the sampler bottles and cleaned sampler. Reset.

STORMWATER O&M LOG SHEET

SITE	Butler			DATE	8/9/01
ARRIVAL TIME	8:35	DEPARTURE TIME	8:40	SERVICED BY	KDF, BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Pulled out all the bottles to clean at the office.

2

3

STORMWATER O&M LOG SHEET

SITE	Butler			DATE	8/10/01
ARRIVAL TIME	12:15	DEPARTURE TIME	12:20	SERVICED BY	KDF, BJW
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	12.5 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Replaced bottles + cleaned sampler. & Reset.

2

3

STORMWATER O&M LOG SHEET

SITE	Butler			DATE	8/14/01
ARRIVAL TIME	11:00	DEPARTURE TIME	11:15	SERVICED BY	KDF, BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	12.5 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 CLEANED AND RESET

2

3

FCD/USGS STORMWATER O&M LOG SHEET

SITE	BUTLER			DATE	8/15/01
ARRIVAL TIME	0830	DEPARTURE TIME	0845	SERVICED BY	KDF
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	CHANGED BATTERY 13.2 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

STORMWATER O&M LOG SHEET

SITE	Butler			DATE	8/17/01
ARRIVAL TIME	10:50 AM	DEPARTURE TIME	10:55	SERVICED BY	KDF, BJW
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.1 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Checked + reset sampler.

2

3

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Citrus			DATE	07-05-01
ARRIVAL TIME	11:45	DEPARTURE TIME	11:50	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Reset Sigma.

2

3

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Citrus Growers @ 71st Ave			DATE	07/06/01
ARRIVAL TIME	1435	DEPARTURE TIME	1450	SERVICED BY	BQW + CMO
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, ~~nitric~~ DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	from office depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

rinsed tubes in jars and back flushed Sigma

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Citrus			DATE	07-09-01
ARRIVAL TIME	10:40	DEPARTURE TIME	10:45	SERVICED BY	KDF + Bfw
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	~~YES~~ NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Checked site.

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Citrus			DATE	7-17-01
ARRIVAL TIME	1:53	DEPARTURE TIME	1:55	SERVICED BY	BSW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Reset Sigma

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Citrus			DATE	7-26-01
ARRIVAL TIME	8:40 AM	DEPARTURE TIME	9:00	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Cleaned bottles + sampler. Reset + ready.

STORM EVENT LOG SHEET

1. Site: CITRUS Your Name: KDF, BJW, NRD

2. Date: 7/30/01 Time: 01:55

SAMPLER PARAMETERS

3. Rainfall: 0.22 in

4. Flow: 0.02 cfs

5. Level: 1.46 inches

O&M PARAMETERS

6. Did sampling equipment operate during event? Yes or No? Describe problems.
ONLY ABOUT 100 ML IN ONE BOTTLE - NO FLOW OR ONLY VERY LITTLE.

7. Battery voltage: 13.0 volts

8. Power On or Off? If power off (Mesa), reset circuit breaker and check/replace fuse if necessary.

FIELD PARAMETERS

9. Discharge (flow) at time of grabs — cfs

10. pH — std units

11. Temperature — deg. C

12. Specific Conductance — uS/cm

13. Dissolved Oxygen — mg/L

14. Barometric Pressure — mmHg

GRAB SAMPLES Take grabs from discharge only!

15. Grab samples taken? Yes or No?

16. Preservatives added to bottles? Yes or No?

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Citrus			DATE	8/1/01
ARRIVAL TIME	11:05 AM	DEPARTURE TIME	11:15 AM	SERVICED BY	KDF, BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.0 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Cleaned bottles and sampler. Reset

STORMWATER O&M LOG SHEET

SITE	CITRUS			DATE	8/9/01
ARRIVAL TIME	08:00	DEPARTURE TIME	08:05	SERVICED BY	FOSSUM + WILSON
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.2 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 PULLED BOTTLES AND RESET SAMPLER.

2

3

STORMWATER O&M LOG SHEET

SITE	CITRUS			DATE	8-10-01
ARRIVAL TIME	11:50	DEPARTURE TIME		SERVICED BY	FOSSUM + WILSON
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.4 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Replaced bottles + cleaned sampler + reset

2

3

STORMWATER O&M LOG SHEET

SITE	Citrus			DATE	8/17/01
ARRIVAL TIME	10:20 AM	DEPARTURE TIME	10:30	SERVICED BY	KDF, BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.4 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Cleaned two bottles & Sigma Sampler, reset.

2 Cleared debris from drainage grate.

3

STORMWATER O&M LOG SHEET

SITE	IND PARK			DATE	7/5/01
ARRIVAL TIME	13:15	DEPARTURE TIME	13:20	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	12.6 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 CLEANED SAMPLER TUBING AND RESET SIGMA.

2

3

FCD/USGS STORMWATER O&M LOG SHEET

SITE	IND PARK			DATE	7/6/01
ARRIVAL TIME	1600	DEPARTURE TIME	1620	SERVICED BY	FOSSUM & DUET
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

RESET SIGMA

3

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Ind. Park			DATE	7-17-01
ARRIVAL TIME	1:15	DEPARTURE TIME	1:20	SERVICED BY	B&W.
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	12.6 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Reset Sigma.

STORMWATER O&M LOG SHEET

SITE	IND PARK			DATE	7/26/01
ARRIVAL TIME	11:00	DEPARTURE TIME	11:05	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	12.5 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 RESET SIGMA

2

3

STORM EVENT LOG SHEET

1. Site: Indust. Park Your Name: KDF, BJW, NRD

2. Date: 7/30/01 Time: 3:40 Am

SAMPLER PARAMETERS

3. Rainfall: 0.59 **in**

4. Flow: TRICKLE **cfs**

5. Level: Ø inches

O&M PARAMETERS

6. Did sampling equipment operate during event? **Yes or No?** Describe problems.

7. Battery voltage: 12.4 **volts**

8. Power **On or Off?** If power off (Mesa), reset circuit breaker and check/replace fuse if necessary.

FIELD PARAMETERS

9. Discharge (flow) at time of grabs TRICKLE **cfs**

10. pH 7.54 **std units**

11. Temperature 26.0 **deg. C**

12. Specific Conductance 197 **uS/cm**

13. Dissolved Oxygen 3.30 **mg/L**

14. Barometric Pressure 733 **mmHg**

GRAB SAMPLES Take grabs from discharge only!

15. Grab samples taken? **Yes or No?**

16. Preservatives added to bottles? **Yes or No?**

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Ind. Park			DATE	8/1/01		
ARRIVAL TIME	1:00 pm	DEPARTURE TIME	1:05	SERVICED BY	KDF, BJW		
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800	900	other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	12.5 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Returned clean bottle set to the sampler. Cleaned sampler + reset.

STORMWATER O&M LOG SHEET

SITE	IND PARK			DATE	8/9/01
ARRIVAL TIME	09:20	DEPARTURE TIME	09:25	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	12.5 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 PULLED CAROUSEL TO BE CLEANED AT OFFICE.

2

3

STORMWATER O&M LOG SHEET

SITE	IND PARK			DATE	8/10/01
ARRIVAL TIME	12:55	DEPARTURE TIME	13:10	SERVICED BY	KDF + BJW
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	12.4 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 CLEANED & RESET SIGMA. REPLACED BOTTLES.

2

3

STORMWATER O&M LOG SHEET

SITE	Indust. Park			DATE	8/14/01
ARRIVAL TIME	11:30	DEPARTURE TIME	12:15	SERVICED BY	KDF, BJW
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.2 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	[redacted]	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Cleaned bottles and sampler. MODEM NOT WORKING

2

3

FCD/USGS STORMWATER O&M LOG SHEET

SITE	IND PARK			DATE	8/15/01
ARRIVAL TIME	0800	DEPARTURE TIME	0815	SERVICED BY	KDF
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	MODEM NOT WORKING
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

REMOVED SAMPLER - RETURNED FOR MODEM REPAIR.

STORMWATER O&M LOG SHEET

SITE	IND PARK			DATE	9-11-01
ARRIVAL TIME	11:25	DEPARTURE TIME	11:30	SERVICED BY	FOSSUM
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	14.0 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 INSTALLED LOANER SAMPLER.

2

3

Date: 8/23/01

STORMWATER O&M LOG SHEET

SITE	Ind. Park			DATE	Sept. 12, 2001
ARRIVAL TIME	4:15	DEPARTURE TIME	4:30	SERVICED BY	bj wilson
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.3 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Changed time format to 24hr. format. Reset to current

2 time 1624 hrs. (Old time was 5:20). Sigma is running.

3

Date: 8/2/01

STORMWATER O&M LOG SHEET

SITE	IND PARK			DATE	9-21-01
ARRIVAL TIME	07:55	DEPARTURE TIME	08:05	SERVICED BY	FOSSUM
SAMPLER	SIGMA OR ISCO			MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	13.2 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 CLEANED BOTTLES + INTAKE TUBING, RESET SAMPLER

2

3

FCD/USGS STORMWATER O&M LOG SHEET

SITE	67th Ave + Olive			DATE	07-05-01
ARRIVAL TIME	12:50	DEPARTURE TIME	1:00	SERVICED BY	FDF + B&W
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	~~YES~~ NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Changed out CR-10 Battery and downloaded data.

FCD/USGS STORMWATER O&M LOG SHEET

SITE	67th + Olive			DATE	07/06/01		
ARRIVAL TIME	1600	DEPARTURE TIME	1611	SERVICED BY	BJW + CMO		
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800	900	other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	ck from office
RAINGAGE (screen, funnel, tipping bucket)	YES NO	" "
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	ck from office. depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

backflushed ISCO and changed out bad bottle

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Olive			DATE	07-09-01
ARRIVAL TIME	10:10	DEPARTURE TIME	10:30	SERVICED BY	KDF + DLW
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Cleaned bottle and Isco. Reset.

FCD/USGS STORMWATER O&M LOG SHEET

SITE	67th + Olive			DATE	7-26-01
ARRIVAL TIME	9:35	DEPARTURE TIME	9:40	SERVICED BY	KDF + BDW
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Cleaned Sampler and drainage area around the intake.
Replaced bottle.

STORM EVENT LOG SHEET

1. Site: 67th & Olive Your Name: KDF, BJW, NRD

2. Date: 7/30/01 Time: 2:15 AM

SAMPLER PARAMETERS

3. Rainfall: 0.61 in

4. Flow: TRICKLE cfs

5. Level: 0.17 ft

O&M PARAMETERS

6. Did sampling equipment operate during event? **Yes or No?** Describe problems.
Sand plug – SAMPLE TUBING IN PUMP, OUT. WATER ALL OVER INSIDE SHELTER.

7. Battery voltage: 12.2 **volts**

8. Power **On or Off?** If power off (Mesa), reset circuit breaker and check/replace fuse if necessary.

FIELD PARAMETERS

9. Discharge (flow) at time of grabs TRICKLE **cfs**

10. pH 8.12 **std units**

11. Temperature 24.5 **deg. C**

12. Specific Conductance 196 **uS/cm**

13. Dissolved Oxygen 6.78 **mg/L**

14. Barometric Pressure 731 **mmHg**

GRAB SAMPLES Take grabs from discharge only!

15. Grab samples taken? **Yes or No?**

16. Preservatives added to bottles? **Yes or No?**

FCD/USGS STORMWATER O&M LOG SHEET

SITE	Olive + 67th			DATE	8/1/01		
ARRIVAL TIME	11:35	DEPARTURE TIME	11:40	SERVICED BY	KDF, BJW		
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800	900	other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	Changed battery 13.0 volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING (tap, liquinox, tap, nitric, DI)	YES NO	Replaced + cleaned
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED

Replaced sample tubing, replaced battery. Cleaned bottle and sampler. Left cooler w/ bottle. Intake clean.

STORMWATER O&M LOG SHEET

SITE	Olive + 67th Ave			DATE	8/9/01
ARRIVAL TIME	8:25 Am	DEPARTURE TIME	8:30	SERVICED BY	KDF, BAW
SAMPLER		SIGMA OR ISCO		MODEL NUMBER	800 900 other

EQUIPMENT CHECKED		COMMENTS
BATTERY VOLTAGE OK	YES NO	volts
SOLAR PANEL CLEAN	YES NO	
CABLES AND CONNECTIONS GOOD	YES NO	
CELLULAR ANTENNA	YES NO	
PHONE TONE	YES NO	
RAINGAGE (screen, funnel, tipping bucket)	YES NO	
SAMPLE TUBING (intake, pump, distributor)	YES NO	
CLEANED SAMPLE TUBING AND COLLECTION BOTTLE	YES NO	
CALIBRATED DEPTH SENSOR	YES NO	depth (in)
CALIBRATED SAMPLE VOLUME	YES NO	ml

SPECIFY ITEMS REMOVED/REPLACED/REPAIRED/INSTALLED. INCLUDE SERIAL NO IF SAMPLER OR PT INSTALLED/REMOVED.

1 Replaced bottle and cleaned + reset sampler.

2 Cleaned drainage intake.

3